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ORIGINAL COMMUNICATIONS.

THE SPINAL CORD IN A CASE OF PERNICIOUS ANÆMIA.¹

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MRS. B., aged forty-five, was referred to me in September, 1895, by Dr. Goetfried Starm. She was paraplegic and exceedingly anæmic; the paraplegia was, however, not complete; she could move her limbs, although unable to walk or stand. Her disease seemed to date from some nervous shock three years previous, when one of her children had been injured at school and died from the effects; she had never been the same person since. Two years before I saw her she had been seriously sick with an ill-defined trouble, which, I am informed by Dr. E. J. Abbott, her physician at the time, presented many of the clinical symptoms, but none of the physical signs, of an acute tuberculosis. In July, 1895, the loss of power in the legs was first observed. Her temperature during her illness fluctuated between normal and 100° F.

After her death I was told that at one time she was supposed to have suffered from Bright's disease. Examination of the urine, however, while she was under my care at the hospital was entirely negative. She complained especially at night of a sensation as if, as she expressed it, her bones were going through her flesh.

Examination showed that tactile sense was markedly diminished over both lower extremities and over the trunk as high as the ensiform cartilage,

¹ Read at the annual meeting of the American Neurological Association, June 2, 1896.

being most marked over the area supplied by the anterior crural nerve. Temperature sense was normal, while that of pain was diminished. She complained of distressing paræsthesia, especially in the area of lessened tactile sensibility; it was present in the upper extremities as well. Rectus clonus was marked in both legs; patellar reflexes were exaggerated. At my first examination I succeeded in obtaining ankle clonus; later it became barely appreciable. There was no ataxia either of the extremities or of the trunk; no lightning pains.

Superficial reflexes: Plantar diminished; gluteal diminished, abdominal epigastric, dorso-lumbar absent; interscapular present.

On October 21 a blood-count was made by Dr. Charles L. Greene which showed 2,264,000 cells per cubic millimetre, representing a count of eighty squares. Hæmoglobin thirty per cent., adherent poikilocytes, microcytes, and megalocytes. On November 27 another blood-count was made, showing 1,340,000 cells per cubic millimetre. The post-mortem examination, by Dr. A. W. Dunning, was made about six hours after death. Subject was found extremely white and but little emaciated; calvarium normal in thickness and easily removed; meninges not unusually adherent. On removal of the cerebellum there was found a necrotic area the size of the end of the little finger, located upon the posterior surface of the petrous portion of the right temporal bone, just below the attachment of the tentorium cerebelli. The forceps were thrust into this aperture to the depth of three-quarters of an inch in a forward and outward direction into the mastoid process. The spinal cord was removed by dividing the pedicles, thus exposing the spinal canal anteriorly. Within this canal in the mid-dorsal region was found a considerable extravasation of blood, together with a quantity of apparently serous effusion. The thorax was filled with serum; the pericardium was distended, and the abdomen also contained a large quantity of serum. The blood-vessels were everywhere empty and colorless. The heart was pale and flabby, with a small clot of blood in each ventricle; liver was enlarged; the spleen was dark and also enlarged. The pancreas was enlarged and extremely fibrous; the intestines were thin-walled and pale; the lungs normal in size and apparently healthy.

MICROSCOPICAL EXAMINATION.

The upper three segments of the spinal cord were attached to the brain when received in the laboratory, and, together with the brain, were hardened in four per cent. formalin.

In hardening, these three segments were somewhat flattened dorso-ventrally by the weight of the brain partially resting on them. The remainder of the cord was hardened in Müller's fluid and alcohol. This portion was slightly twisted at the level of the D. 6.

(All the segments were then separated, embedded in celloidin, soaked *en bloc* in copper acetate solution, cut, stained in Weigert's hæmatoxylin, decol-

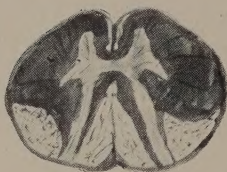
D. 5.



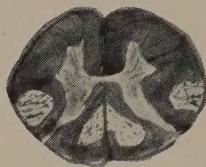
D. 12.



D. 6.



L. 1.



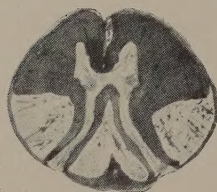
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L. 2.



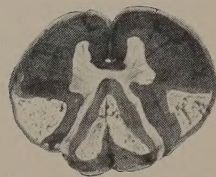
D. 8.



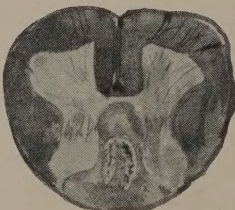
L. 3.



D. 9.



L. 4.



D. 10.



L. 5.



D. 11.



orized in potassium ferricyanide and sodium biborate solution, cleared in clove oil, and mounted in xylol-balsam.)

On examination with low power the following degenerations were observed :

1. *Anterior Pyramidal Tract*.—The area of degeneration was greatest at the level of the C. 6, much less at the level of the C. 5, and showed only as a trace on the right side in the C. 4. Below the D. 7 it became gradually reduced in size till it finally disappeared as a trace on the right side at the level of the D. 8.

2. *Direct Cerebellar Tract*.—The area of degeneration appeared as a trace at the level of the D. 10, gradually increased in extent to the level of the D. 4, and continued thence without materially changing in size to the C. 1. The area was greatest on the left side throughout the whole extent of the cord.

3. *Cross Pyramidal Tract*.—The area of degeneration appeared as a trace in the C. 2, gradually increased in extent to the level of the D. 8, and decreased from there to the L. 3, where it disappeared. It was greatest in the left side throughout.

4. *Column of Lissauer*.—The area of degeneration extended from the C. 1 to the D. 6, and was greatest at the C. 6.

5. *Column of Burdach*.—The area of degeneration extended from the C. 1 to the L. 3, being greatest at the level of the D. 6. The degeneration was most marked at the median and posterior margins of the column.

5(a). *Posterior External Field of Posterior Column*.—The area of degeneration extended from the C. 1 to the D. 7, being greatest at the C. 5.

6. *Column of Goll*.—The area of degeneration extended from the C. 1 to the end of the column, being greatest at the D. 6 and the C. 3. From the C. 4 downward the posterior median aspect of the column was less degenerated than the other portions, and from the L. 2 downward the area in the right side was wider than on the left.

All other columns were normal throughout their entire extent.

Examination of the degenerated areas with high power showed axis cylinders and medullary sheaths in various stages of disintegration. Many of them were granular and others fatty. The degenerated columns, especially in the mid-dorsal region, were shrunken and contained an excess of connective tissue.

The gray matter appeared normal throughout.

The arteries wherever present showed a thickening of the endothelium, and here and there an inward projecting growth of new connective tissue.

The Liver.—(The liver was hardened in alcohol, embedded in celloidin, cut, stained in lithium carmine, treated with potassium ferrocyanide and acid alcohol, cleared in clove oil, and mounted in balsam.)

Examination showed areas of fatty infiltration and degeneration, and an enormous deposit of hæmosiderin and hæmatoidin, both in the liver cells and in their trabeculæ. The pigment was mostly in the centre zone, but

extended in some lobules through the middle zone, even lining the walls of the capillaries.

Spleen.—The spleen was treated as the liver. The only pathological change observed was a scattered deposit of the same pigments found in the liver.

Arteries.—(Portions of arteries from the circle of Willis were hardened in alcohol, embedded in celloidin, cut, stained in lithium carmine, cleared in xylol, and mounted in balsam.)

Examination showed thickening of the middle coat.

No apparent relation existed between the areas of degeneration and the mid-dorsal clot noted at the post-mortem. The points of origin of degeneration were widely separated, some lying in the upper cervical and others in the lower lumbar. None of the columns, except possibly the left direct cerebellar and the right direct pyramidal, had all their fibres involved, supposing their sectional areas to be correctly figured in the standard atlases.

Taken as a whole, it would seem that the scleroses were certainly not systemic in their origin, but probably were of vascular origin.

This view is held by Nonne, and quoted by Marie, in the *Revue Neurologique* for November, 1895.

Nonne examined cords in seventeen cases of pernicious anæmia, in seven of which the findings were negative; in three the lesions were clearly defined in the neighborhood of vessels, and in the last seven there were medullary lesions of pronounced type. The first two of these groups showed no distinctive clinical symptoms; not even in all the cases of the third group were they present, and when found consisted mainly of the loss of the knee-jerk, a slight ataxia, and some troubles of sensation.

Nonne concludes further that the pathological characteristics are small patches of degeneration, beginning in the cervical cord, showing predilection for the root-zones of the posterior columns, as well as for the anterior and lateral columns.

The findings in this case would seem to bear out Nonne's conclusions.

Osler also quotes Lichtheim, Morris Lewis, and Burr as reporting cases of sclerosis of the posterior column. He further notes the constant and peculiar distribution of hæmosiderin in the liver.

*FEBRILE ENDOCARDITIS IN THE AGED.*¹

BY W. M. GIBSON, M.D.,

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IN my consultation practice I have often been surprised at the accuracy with which practitioners who rely chiefly on their text-books for their information make the diagnosis of valvular heart-lesions and detect changes in the heart-muscle. But it has been the exception to see, in consultation, cases of febrile endocarditis in the aged in which the febrile condition was attributed to the endocardial inflammation. One reason for this, it seems to me, is that the average text-book on the practice of medicine, in dealing with natural lesions of the heart, does not call sufficient attention to the fact that in old people a reinflammation of a cardiac lesion is not an uncommon thing. It must be remembered, also, that we do not look for febrile conditions in advanced life, apart from pneumonia, so much as for degenerations or disorders of nutrition, or diseases characterized by cachexia.

Febrile endocarditis in the aged is almost always ingrafted on an old valvular lesion. The disease, however, may have its origin late in life in an attack of acute articular rheumatism, or it may result from some other form of infection.

In all of the cases coming under my observation, a history of a previous valvular heart affection could be obtained. In our text-books the following are mentioned as exciting causes of acute endocarditis: rheumatism and many of the other infectious diseases, especially scarlet fever, diphtheria, pneumonia, erysipelas, pyæmia, small-pox, and typhoid fever. It is also recognized that it may occur as a complication in phthisis, Bright's disease, diabetes, cancer, and gout. It may occur also in the course of otitis media, pyephlebitis, phlegmonous inflammations, periosteal disease, and necrosis of bone. I have met with it as a complication of dysentery in aged people. Recently I have found that a common cause of reinflammation of an old cardiac lesion in an aged person is the form of influenza which has prevailed so widely during the last few years. The nervous exhaustion and the depression of general vitality resulting from an attack of influenza must impair the nutrition of the endocardium as well as that of the heart wall.

Among old men I have found that endocarditis is not infrequently the result of infection from a purulent inflammation of some portion of the genito-urinary tract. Injuries of the prostate and deep urethra by dirty or forcibly-used catheters are dangers which cannot be regarded lightly in aged

¹ Read at the annual meeting of the American Climatological Association, May 12, 1896.

subjects of valvular heart-disease. Bad hygienic surroundings, long-continued exposure to cold and damp, and the excessive use of alcohol have, too, some influence in depressing heart nutrition.

Traumatic infection in the aged is always a serious matter, and doubly so if the aged person is afflicted with a heart lesion. It must be remembered that traumatic lesions in the aged are not always accompanied by external signs of infection, and that the evidences of infection are often only to be found in parts distant from the seat of the injury.

Prolonged grief and shock seem to have some bearing as causative agents in this form of endocarditis. One case occurring in my practice, that of a man, aged sixty-three years, who succeeded in keeping up a compensation for an aortic obstruction and mitral regurgitation for nearly twenty years, developed, immediately after the sudden death of his wife, an endocarditis which wound up in a fatal uræmia. No other cause could be assigned for this endocarditis except the depression of nutrition attendant on his grief.

In another case of a similar lesion in a woman, aged seventy-five years, shock caused by being roused up from sleep by a burglar, was followed by rapid dilatation of the heart and endocardial inflammation, which was accompanied by febrile movements lasting nearly two months.

A definite relationship seems to have been established between endocarditis and certain micro-organisms. Weichselbaum, in a series of twenty-nine cases, found in seven the *diplococcus pneumoniae*; in six, the *streptococcus pyogenes*; in two, the *staphylococcus pyogenes*; in eight, bacteria of various natures; and in the remaining six the culture-experiments were negative. He found also that pure cultures of *streptococcus pyogenes* and *staphylococcus aureus*, when injected into the veins, gave rise to endocarditis; but Weichselbaum calls especial attention to the fact that this endocarditis was far more malignant if the valves of the heart were not in a normal condition at the time of the experiments. Remembering the pathology of endocarditis, we can easily see that thrombotic deposits upon the altered valves or necroses of the endocardium may readily occur in almost any form of blood infection. We must remember, too, in studying endocarditis in the aged, that the essential change in the senile heart is a weakened heart-wall, and also that the senile heart has to deal with alterations in the structure of the arteries. Again, that the resulting venous stasis not only calls on the weakened heart for greater work, but also interferes with the nutrition of the nerve-centres, which furnish the energy that governs the vascular mechanism.

With a knowledge of the condition of the senile heart, it is rather to be wondered at that endocardial inflammation is not more commonly met with in old age; but perhaps the anatomy of the organ may explain this; the fact that the heart in performing its work provides for its own nutrition first, and that of the brain next.

If an attack of endocarditis in an aged person results from a rheumatic

infection, the symptoms are usually pronounced enough to call attention to the heart early in the onset of the disease. Again, if it occurs as a result of serious traumatism, it can hardly be mistaken.

A few such cases have come under my observation, and their clinical characters have stamped them as high-grade acute maladies. These cases have been speedily fatal, dying either from uræmia, embolic pneumonia, cerebral embolism, or general septicæmia, and were undoubtedly cases of acute typhoidal or malignant endocarditis, and were easily recognizable as such from the onset.

In the majority of the cases that I have seen, the course of the disease was subacute or lingering. A history of gradual loss of strength, interference of digestive functions and general nutrition, without apparent cause, was obtained. The subacute form of endocarditis in the young and in adult life runs, as a rule, a protracted and irregular course, and in the aged this disease does not differ much in this respect; if anything, its course is more irregular, and it may be weeks before alarming symptoms are manifested. Rarely at the onset is there much dyspnoea or pronounced interference with cardiac functions.

The misleading features of endocarditis in advanced life are those which are common attendants on degenerations and cachexias. The progressive emaciation and disturbance of stomach and intestinal digestion are very apt to call attention to the state of the digestive organs and institute a search for a new growth, or some profound disturbance of digestion. Again, the chills and sweats, with an irregular type of fever, lead one to suspect the onset of some one of the fevers. Some of my cases passed on into a low typhoid condition, with many of the characteristics of that state, including enlargement of the liver and spleen, before marked interference with the circulation became apparent, or before an embolism of the brain, lung, or kidney occurred to demonstrate the serious nature of the endocardial inflammation.

In the early stages of the disease the temperature-curve is generally irregular, but, as a rule, as the disease advances the fever becomes continued. High temperatures are not usually recorded, except in malignant cases, or at times in the course of the disease when an embolism occurs, or when pneumonia becomes a complication.

The continued type of the fever is also broken if the case becomes thoroughly septic: then the temperature may range from an extremely high point to subnormal. The fever of endocarditis in the aged seems to bear a certain relationship to the character of the infection producing the endocarditis. But if an infection has not been detected and the physical signs of an endocarditis have not been appreciated, although perhaps recognized, this febrile movement is a very misleading and perplexing symptom.

I have been called in consultation in a number of these cases simply because the attending physician could not make out the nature of the fever he was dealing with. Some of these cases were regarded as irregular cases

of typhoid fever by the physicians in charge. In all of them there was a history of a previous valvular lesion, and there were present the physical signs of an acute endocarditis.

In drawing a line between endocarditis and typhoid fever in aged people, it seems to me that the statistics compiled by eminent clinicians should be borne in mind. For instance, Liebermeister gives the percentage of cases of typhoid fever occurring in aged people between the years of sixty-one and seventy as only 0.06 per cent. The mental hebetude characteristic of typhoid fever is seldom, if ever, present in the early stages of endocarditis in the aged. In typhoid fever in the aged we would expect to meet with very alarming cerebral symptoms if the infection were deep enough to produce endocarditis early in the course of the disease.

In endocarditis in the aged, the mind, as a rule, is clear and the patient is often able to direct his affairs with but little fatigue. Even after a continuation of the febrile condition for several weeks it is remarkable how little disturbance of cerebral function is exhibited, unless a cerebral embolism has occurred. The nervous symptoms we do meet with are chiefly those of mild febrile and toxic irritation, such as slight headache, disturbed vision and hearing, restlessness and insomnia. In all of these cases it seems to me much better to regard the febrile condition as the result of an endocarditis rather than to look on it as the expression of a typhoid infection.

I have the records of twelve cases of subacute endocarditis in aged people which were mistaken for various types of malarial fevers. In no one of these could any of the forms of the *Plasmodium malarie* be detected. The chills, the fever and sweats, the enlargement of the liver and spleen, and the digestive symptoms were all pointed out as evidences of malarial infection. The heart-murmurs, the progressing changes in the heart wall, the dyspnoea, and in some instances cerebral and renal embolism, while recognized, were considered results of malarial infection.

In one case my diagnosis of endocarditis, instead of malarial fever, was considered refuted by the occurrence of a profuse hæmaturia, although the hæmaturia was followed by a suppurative nephritis. But one case has come under my observation in which the malarial plasmodium was detected during an attack of endocarditis in an aged person, a case that occurred in the practice of Dr. Ford, of Utica, and I think he will agree with me that the malarial symptoms played a very unimportant part compared with those of endocardial inflammation.

The diagnosis between malarial fever and endocarditis in the aged, it seems to me, can readily be made, especially if the patient has not received much quinine. I have found that even ordinary doses of quinine affect the aged subject of an endocarditis unfavorably, and its administration could hardly be carried to the point of clearing the blood of malarial parasites without producing much heart-depression. In the stage of septicæmia in endocarditis the general disturbances are so profound that, were they due to

a malarial infection, the plasmodium would be present in great enough numbers to admit of ready detection by a careful observer. If in one of these cases this organism cannot be detected, and all the physical signs of a progressing inflammation of the endocardium are present, this, with a history of a previous valvular heart lesion, ought to be sufficient to indicate the true nature of the disease.

As I have remarked before, the progressive emaciation and digestive disturbances seen in the endocarditis of the aged might lead one to suspect the presence of a new growth.

Persistent vomiting which is often present is certainly misleading. I saw a case this winter, a man, aged sixty-seven years, who had been reduced to an extreme degree of emaciation, after a siege of two months of fever, attended by vomiting which could be controlled only for a day or two at a time. Just previous to my visit he was seized suddenly with a severe pain in the pit of his stomach and vomited shortly after a considerable quantity of fresh blood. At about the centre of the lesser curvature of the stomach a small circumscribed tumefaction could be detected. Physical examination of the heart revealed harsh blowing murmurs at the aortic and mitral orifices, and also extreme dilatation. This man gave a history of having irregular chills, fever, and profuse sweats for several weeks prior to the fever becoming continued. The urine was highly albuminous and contained numbers of granular casts. The physician in charge of the case had been very much puzzled to account for the febrile symptoms, but, while recognizing the heart lesion, had suspected the presence of cancer of the stomach. The occurrence of the hemorrhage and the detection of the tumor seemed to him a confirmation of his suspicions. I ventured to make the diagnosis of endocarditis with embolism of a branch of the gastric artery. I saw this case recently when all the febrile symptoms had subsided, the tumefaction in the wall of the stomach had disappeared, the vomiting had ceased, and the cardiac lesions were again being compensated for.

Another case coming under my observation, that of a man, aged sixty years, gave a history of several attacks, preceded by periods of irregular chills and fever, sweats, and persistent vomiting. From the last attack he passed into a low septic condition. He had become greatly weakened and much emaciated. The diagnosis of cancer of the stomach had been made by several physicians. I found at my visit all the evidences of endocarditis with dilatation of the heart-walls. The urine was loaded with albumin, granular casts, pus-casts, and Ultzman's pus-plugs. In view of the man's septic condition and the physical signs of an endocarditis, the diagnosis of cancer did not seem to me warranted, especially as no tumor could be made out. He passed into a low typhoid state, and died from exhaustion. At the autopsy no trace of a new growth could be detected. In the mucous membrane at the cardiac portion of the stomach several small, light-yellow patches were found, from which radiated distended veins, evidently the results of minute embolisms. The liver and spleen were much enlarged

and showed evidences of parenchymatous degeneration. The right kidney presented the condition of complete fatty involution, and in the left kidney numerous pyæmic abscesses were found. The heart was extremely dilated, the walls thin and softened, and the valves were ulcerated and covered with thrombi of recent formation. The history of this case extended with some intermissions something over two years; during the greater part of this time a continued temperature-curve was noted by the thermometer.

In following up, then, our cases of valvular heart lesions in aged people it may be well to bear in mind that an inflammation of old lesions can easily be provoked, and that while we seek to keep up compensation for the obstructing lesion or the insufficient valves we must be on the watch for something more than the signs of failing heart muscle. Pyrexias, even of short duration, should be regarded with suspicion. Recurrent attacks, especially if accompanied by chills, digestive disturbances, or any septic symptoms, warrant the assumption that the old lesion is the seat of a new endocardial inflammation, even though pronounced cardiac symptoms are absent.

A CASE OF ANEURISM OF THE ABDOMINAL AORTA WITH THROMBOSIS OF THE RIGHT RENAL ARTERY.

BY JOHN H. MUSSER, M.D.,

AND

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THE patient was a negro, aged forty-seven years, a native of New Jersey, and a laborer by occupation. He was admitted to the medical wards of the Philadelphia Hospital, May 1, 1896. His mental condition was such that the following data were obtained with difficulty:

His mother, father, and five brothers are dead of unknown causes. Four brothers and one sister are alive and healthy. There is a history of alcoholism in the family, but no tuberculosis or rheumatism. He had had typhoid fever and pneumonia in boyhood, but never scarlet fever. No history of syphilis or alcoholism could be obtained. For two weeks previous to admission he had had much pain in the left iliac region, running across to the right hypochondriac. He was constipated, and had had several obstinate attacks of hiccup. There is no history of ascites or œdema at any time. The patient is delirious at intervals, and his statements are indefinite and unreliable.

Examination, upon admission, by Dr. Musser: There is considerable emaciation and muscular wasting. The pupils are contracted and are equal. The patient is in a condition of muttering delirium and can be aroused with difficulty. The abdomen is contracted to a marked degree, and the muscles of the abdominal wall are so rigid and there is such exquisite tenderness over this entire region that no data can be obtained by the usual methods.

Superficial cardiac dulness extends three and a half inches to the left of the

midsternal line, and by auscultatory percussion three-fourths inch farther to the left. The right border corresponds with the midsternum. The upper limit is the upper border of the third rib. The apex-beat is in the fifth interspace in the midclavicular line. The heart-sounds at the apex are muffled and indistinct. The second sound in the aortic area is accentuated and bell-like in character. The pulse is of high tension, and the radial and temporal arteries are thickened and rigid.

There is an area between the right nipple and the right edge of the sternum where the resonance on percussion is high-pitched, the tactile fremitus is lessened, and the breath-sounds are suppressed. The heart-sounds are transmitted to and clearly heard in this region. Vocal resonance is increased over the apex of the right lung anteriorly, but the breath-sounds are suppressed over both apices. Posteriorly there is suppression of the respiratory murmur over the upper third of both lungs. It is fairly distinct at the bases. There are no râles.

The upper border of the liver dullness corresponds with the upper border of the seventh rib.

Urine.—The amount secreted in the twenty-four hours following admission was twenty-four ounces. Its specific gravity was 1020. It was acid in reaction, and contained one-fourth, by bulk, of albumin, many pale granular casts, and much uric acid.

The temperature upon admission was 99° F., but it soon became subnormal, and ranged between 96° and 97° F. until death.

The amount of urine increased slowly to fifty-two ounces in the twenty-four hours upon May 12, and then gradually diminished in amount until death. Its chemical analysis remained practically the same.

The patient had several severe and obstinate attacks of hiccough while under observation. He was constipated and vomited frequently. The mental symptoms grew progressively worse, and five days before death he passed into a condition of stupor. Death occurred May 17.

Autopsy (at the Philadelphia Hospital, May 18, thirty hours after death).—The body of an emaciated negro. The abdomen is markedly retracted over its whole extent. The muscles of the abdominal wall are firmly contracted, and on section are of a dark slaty-red color (post-mortem change?). There is very little subcutaneous fat. Rigor mortis is well marked.

Abdominal Cavity.—There is a small amount of clear fluid. No evidence of tuberculosis upon any of the peritoneal surfaces. The liver reaches to the fifth interspace above, and extends barely to the costal margin in the midclavicular line. Behind the pancreas, and lying upon the body of the first lumbar vertebra, is a rounded tumor. This is retroperitoneal, and is opposite the origin of the seventh costal cartilage. The inferior vena cava and the nerves of the solar plexus lie upon its anterior surface. This tumor measures six centimetres in its antero-posterior diameter and eight centimetres in its vertical diameter. On dissection, it is found to be a sacular aneurism of the abdominal aorta. The celiac axis is given off immediately above the sac, and is adherent to it. The superior mesenteric artery comes from the aorta immediately below it. The left renal artery arises from the aorta directly behind the opening of the sac, and the right renal artery is given off from the sac itself. Upon opening the aorta the mouth of the dilatation is found to be clearly defined, and measures three by two centimetres. The long diameter of the opening is in the same direction as that of the artery. The sac is entirely filled with a red and firm coagulum. This has a definite, laminated structure, which is especially marked in the portion in relation with the aneurismal wall.

When the right renal artery is opened, it is seen to contain a hard, white thrombus that appears to totally occlude the artery for a distance of eighteen millimetres from its point of exit from the aneurism. This thrombus mass is closely adherent to the arterial wall, from which it can be stripped with difficulty. It is firm and

resisting and has evidently undergone fibrous change. The artery and its branches to the distal side of the thrombus are filled with softer red coagula, until the kidney substance is reached, when the coagula cease, and the vessels are free from obstruction. The left renal artery is normal. The intima of the abdominal and thoracic aorta shows many areas of fibrous change.

The connective-tissue envelope of the aorta was stripped off down to the aneurism, and at one portion of the sac was found to constitute its only covering. At other points the coats of the artery appear to be intact. The inferior vena cava lies directly to the right of the tumor and receives the left renal vein, that crosses the tumor to join it and is much dilated, measuring two centimetres in diameter at its widest point. The vein of the right kidney is normal.

Pleural Sacs.—The right is almost entirely obliterated by firm adhesions. The left has a few adhesions posteriorly at the apex.

Lungs.—Hypostatic congestion and œdema of the lower lobes on both sides. Otherwise nothing of interest.

Pericardium.—Normal.

Heart.—Full of liquid blood. The left ventricle is firmly contracted. Its myocardium is of fairly good texture and is much hypertrophied. The wall of the left ventricle measures twenty-four millimetres in thickness. There is considerable atheroma of the aorta directly above the semilunar valves, but the leaflets themselves are not affected. There is slight fibrous thickening of the free edges of the mitral leaflets, but the valve appears competent. The right ventricle is dilated and its myocardium is somewhat hypertrophied. It measures six millimetres in thickness. Valves of the right heart are normal. The weight of the heart is four hundred and forty grammes.

Spleen.—Small and is much congested. There is evidence of considerable increase in connective tissue. Its weight is sixty grammes. Dimensions: $9 \times 7 \times 1$ centimetres.

Suprarenal Capsules.—Normal.

Left Kidney.—Somewhat enlarged and measures $12.5 \times 9 \times 3$ centimetres. The capsule strips readily. The organ is somewhat flabby. The stellate veins are plainly seen. The cortex is swollen and is generally of a pale yellow color. The pyramids and medullary rays are congested.

Right Kidney.—Is smaller than usual, and measures $11 \times 6.5 \times 3$ centimetres. It is intensely congested and drips blood from the section. The capsule is somewhat adherent, and there are several small cysts upon the surface under it. The cortex is contracted and its consistency is increased. The cortex and pyramids are uniformly congested and dark-red in color.

Ureters and Bladder.—Normal.

Pancreas.—Normal.

Small Intestine.—Normal. No evidence of tuberculosis.

Stomach and Duodenum.—Nothing of interest is noted.

Colon and Rectum.—There is a large amount of fæces in scybalous masses. Both show irregular areas of intense congestion. The mucous membrane is covered by tenacious mucus. In the rectum are numerous hemorrhages into the mucous membrane, which average two centimetres in diameter. The impression is given that such areas are the result of pressure caused by the fæcal masses.

Liver.—Somewhat pale and irregularly mottled by yellowish areas. On section there is seen to be considerable perilobular congestion, and the parenchyma is pale with scattered yellow spots that appear fatty.

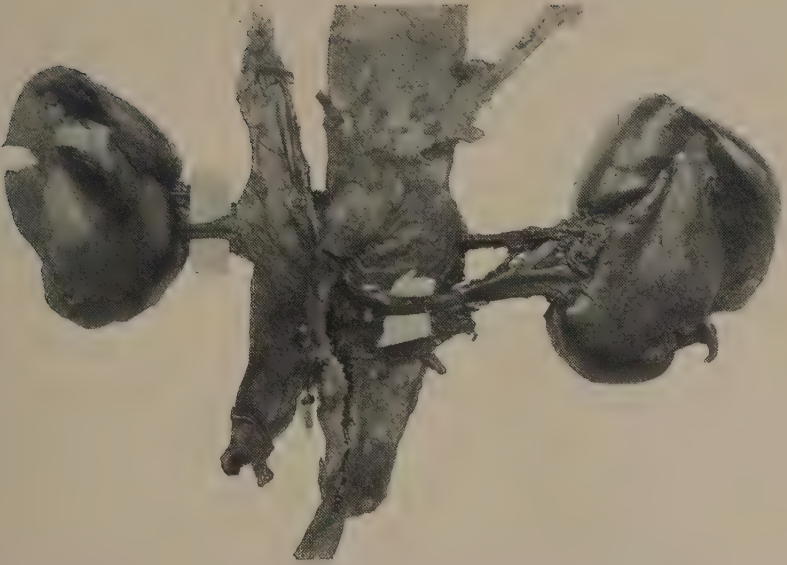
Gall-ducts are patulous and are not dilated.

Gall-Bladder.—Normal.

Brain, Spinal Cord, and their Membranes.—Normal.

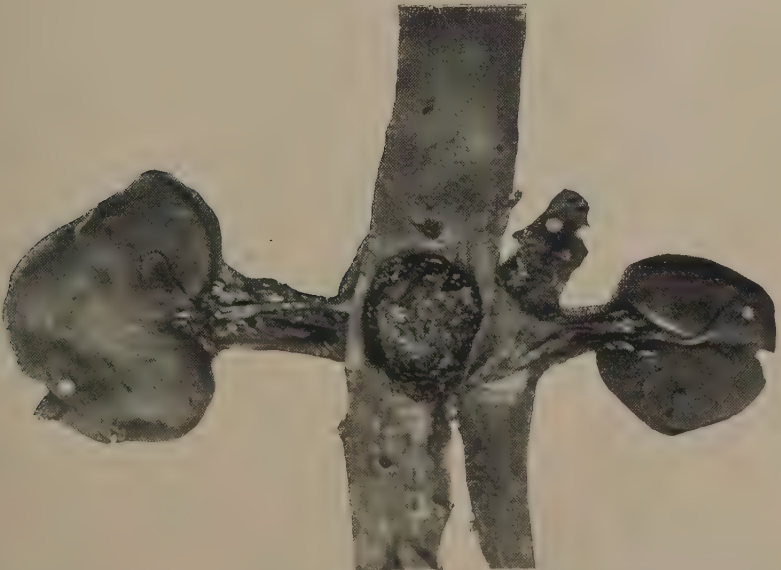
Microscopical Examination: Left Kidney.—There is some increase of the connec-

FIG. 1.



Anterior view of the abdominal aorta, inferior vena cava, and kidneys. The right renal vein is dilated. The celiac axis is dissected away from the aneurism, and is seen above and to the right. The difference in size of the kidneys is well shown.

FIG. 2.



Posterior view. The opening of the aneurism is shown with the laminated coagulum. The aorta is laid open on its posterior surface. The right renal artery comes from the trunk of the aorta; the left renal artery from the aneurismal sac.

tive-tissue elements, as well as evidences of an acute inflammatory process. The glomeruli, as a rule, are swollen, the capillaries are dilated, and the connective tissue of the tufts shows a considerable amount of round-cell infiltration. In places the tufts have undergone a hyaline degeneration that appears to commence in the capillary walls. The Malpighian bodies become swollen and homogeneous with fragmentation and, occasionally, complete loss of the nuclei. The hyaline material stains poorly with carmine, and when the process is not too advanced the faint outlines of the individual capillaries can still be seen. The cells of the tubules are much swollen throughout the cortex. In places there is much desquamation and an advanced fatty degeneration. The arterioles throughout the section show much increase of the connective tissue of the intima and adventitia. In many instances the endarteritic process has caused complete obliteration of the lumen of the vessel. Occasionally commencing hyaline degeneration is seen in such an obliterated arteriole. There are numerous small hemorrhages scattered through the cortex.

Right Kidney.—There is some increase in the connective tissue. This condition is rather more marked than in the left kidney. The Malpighian bodies are swollen and infiltrated, and in several places there is commencing hyaline degeneration, similar to that described above. The cells of the convoluted tubules have very generally undergone fatty degeneration, and in many instances have lost their nuclei, and have entirely broken down, the tubules being filled by granular detritus. The arterioles show an endarteritis with occasional obliteration of the smaller vessels, and commencing hyaline change. There are no hemorrhages in this kidney.

This case has seemed to us to be of interest, both on account of the rarity of thrombosis of the renal artery and the peculiarity of the clinical symptoms.

There was no attempt, macroscopically at least, at collateral circulation between the branches of the occluded renal artery and the small branches of the lumbar vessels supplying the perirenal connective tissue. Indeed, in the authorities that we have consulted, there is no mention of such an anastomosis, but from the close proximity of the terminal branches of the two sets of vessels, such a communication is conceivable. The only apparent results of the stoppage of the arterial supply were the intense congestion of the organ and the advanced degeneration of the cells of the convoluted tubules. It is remarkable that the left kidney maintained the urinary secretion as long as it did, in view of its diseased condition, and the evident inability of its fellow to assist it.

The previous history, that of the present disease, and the subjective symptoms did not aid us in the diagnosis. That of nephritis and uræmia was established by the results of the urinary examination, in connection with the cerebral and gastric symptoms, which were looked upon as uræmic.

Of great interest and difficult to explain were the markedly hard and retracted abdominal walls. The emaciation of the subject led to the suspicion of possible tubercular peritonitis or gastric carcinoma. Such remarkable retraction is seldom seen except as the result of peritoneal irritation in an aged subject. It is known to occur, of course, in meningitis of childhood.

The great amount of sclerosis throughout the whole arterial system may perhaps be explained by alcoholism, though the extensive endarteritis of the smaller vessels of the kidney suggests a possible syphilitic origin.

THE TREATMENT OF HÆMOPTYSIS.¹

BY R. H. BABCOCK, M.D.,

Chicago.

IN the early stage hemorrhage from the lungs is, in most instances, the result of active hyperæmia, and ceases so soon as the too active flow of blood to the lungs is corrected. When the hemorrhage arises from the ulceration or rupture of a pulmonary artery, either the opening must be closed by the contraction of the vascular coats or by the formation of a coagulum. Hence the administration of ergot, acetate of lead, gallic acid, and the like. But do these remedies accomplish the end sought? The effect of ergot is either denied altogether or considered doubtful by many clinicians. Openchowsky claims to have demonstrated, by means of a manometer introduced into the pulmonary arteries of lower animals, that drugs which affect blood-pressure within the aortic arterial system exert no effect upon the pulmonary arteries, except indirectly through their influence over aortic blood-pressure. Landois states that "contraction of small arteries, which causes an increase of blood-pressure in the systemic circulation, also raises the pressure in the pulmonic circuit, because more blood flows to the right side of the heart." Also, that the "vasomotor system has much less effect upon the pulmonary blood-vessels than upon those of the systemic circulation."

These considerations make it probable that ergot not only does not produce contraction of the pulmonary capillaries, but, through its constriction of the systemic arterioles, raises blood-pressure within the pulmonic system, and would theoretically aggravate rather than ameliorate hæmoptysis in the stage of excavation. The application of ice to the chest is stated by Landois and Winternitz to produce contraction of pulmonic capillaries, and its employment is, of course, based on this theory. Its effect cannot be localized, and it may be applied indifferently to various parts of the chest instead of nearly over the probable seat of hemorrhage. Indeed, Winternitz advocates the application of ice-bags to the supraclavicular spaces. It seems to me that the surest method of producing contraction of the pulmonary blood-vessels is by lessening the amount of blood flowing through them, if, indeed, that be at all possible, and that this is best accomplished by dilatation of the systemic arterioles,—in other words, bleed the patient into his own vessels. Furthermore, the retardation of the circulation favors the coagulation of the blood at the seat of hemorrhage. To meet this

¹ Read at the meeting of the American Climatological Association at Lakewood, May 13, 1896.

twofold indication arterial and cardiac depressants are employed. Aconite and veratrum viride produce arterial relaxation and slow the pulse-rate, but do this chiefly through their effect upon the myocardium. There is, therefore, certain danger of too greatly weakening the heart's action, and a drug which will produce vasomotor dilatation primarily and a subordinate degree of cardiac asthenia is preferable. Such a remedy is ipecac, and, administered in doses sufficient to maintain nausea, it is not only theoretically but empirically useful. The power of increasing the coagulability of the blood claimed for gallic acid is questionable, and the vasomotor-constrictor effect of tannic acid, acetate of lead, and mineral acids is open to the same theoretical objection as is ergot.

In conclusion, permit me briefly to state the treatment I employ. For the hæmoptysis of active hyperæmia I quiet the cough,—preferably by phosphate of codeine, by hypodermic injections or by the mouth; prescribe syrup of ipecac in frequent doses until nausea is produced, and order an efficient but not severe aperient, preferably Hunyadi or Rubinat water. If the hemorrhage be within a cavity and profuse, I order the immediate injection, hypodermically, of one-fiftieth or even one-twenty-fifth of a grain of sulphate of atropine. It is rarely my lot to reach the bedside during such an attack, but in cases in which profuse hæmoptysis is likely to recur, I leave orders with the nurse to resort at once to this treatment. This dose promptly produces pronounced physiological effects, but is not dangerous, and the increase of the heart's rate and vigor is offset by the vasomotor paresis occasioned, which diverts the blood to the periphery. It may be urged also that the effect of a full dose of atropine corresponds to that of the application of heat to the surface of the body.

Schueller's experiments with animals showed that contraction of the internal vessels promptly follows the application of heat to the integument, as of the abdomen. It may be that the flushing of the skin caused by atropine acts like the application of heat by producing contraction of internal, and therefore pulmonic, vessels. If anything will promptly arrest pulmonary hemorrhage, I believe it is atropine administered in this way. The subsequent treatment is all directed to the maintenance of the effect obtained by the atropine, and consists essentially of ipecac, codeine, and laxatives in doses varying to suit the requirements of each case. It goes without saying that absolute physical and mental rest is insisted upon, and the diet is light and unstimulating. In a word, I believe that when our efforts have been directed in keeping the lungs quiet and the blood in the periphery of the body, we have done all that can be done for the relief of hæmoptysis; nature must do the rest.

REVIEW OF MEDICINE.

THERAPEUTICS.

IN CHARGE OF ALEXANDER D. BLACKADER, B.A., M.D.,
Professor of Therapeutics, McGill University, Montreal, Canada,

ASSISTED BY

D. J. EVANS, M.D.

Local Hot-Air Treatment in Rheumatism and Allied Affections.
(Tallerman-Sheffield.) (*Lancet*, August 29, 1886.) By W. Knowsley Sibley, M.D.

The dry hot-air method of treatment was brought to the writer's notice in August, 1894, when the "Tallerman-Sheffield localized hot-air apparatus" was introduced into the Northwest London Hospital. He has employed this treatment in a large variety of cases, and considers that its value is not merely a temporary one, but is of a more or less permanent nature.

This apparatus consists of a copper chamber, generally cylindrical, of various shapes and sizes, so that the limbs, whole or in part, can be inserted and treated locally. The contained air is maintained in a dry condition during treatment; the temperature is varied at will, and is indicated by a thermometer, the bulb of which is passed into the chamber to the level of the part under treatment, and the scale is read on the outside. The heating agency used is gas or oil. An arrangement of asbestos allows of the suspending or resting of the limb during treatment.

The patient, suitably clad in flannel to encourage free perspiration and to prevent too much radiation of heat from the body, suffers no inconvenience or discomfort from the high temperature. The treatment lasts from fifty minutes to an hour. The temperature is usually about 150° F. when the part is first put into the chamber, and this is gradually raised to 220° F., and thence upward, in some cases to as high as 300° F. When the treatment is required to act quickly as an anodyne the temperature is rapidly raised to 260° or 280° F. But under ordinary circumstances it is gradually raised and a general free perspiration breaks out over the whole body; at the same time the body temperature is temporarily raised from $\frac{1}{2}^{\circ}$ to 3° F., a physiological effect hitherto regarded as impossible to be obtained. The pulse increases in frequency, and to a less marked extent the respiration. A few minutes after the operation is completed the pulse, respiration, and temperature return to the normal or previous condition. Usually, about an hour after treatment, the pulse is found to be slower and stronger

than it was before treatment. Pain is almost at once relieved, and the parts soon become more lax and supple. When the limb is first removed there is often a transient erythematous blush. After the bath the whole body is briskly and lightly rubbed down with a dry towel and the limb sometimes gently massaged with olive or other oil.

With regard to the physiology of the processes the author states that, *locally*, the heat produces dilatation of all the cutaneous vessels and free circulation through the parts, and at the same time there is a marked stimulation of the nutrition of the cutaneous nerves; there is free perspiration of an acid sweat; and relief from pain is almost at once apparent. *Generally*, there is profuse perspiration and dilatation of vessels; increase of the rate of the pulse and force of the heart's action; increase of the respiratory movements; and an increase in the body temperature often of 2° or 3° F.

No unsatisfactory result has followed the use of this treatment, although many of the patients were old and debilitated, and in some cases the objective disease was attended by heart and other visceral complications.

The following case bears testimony in regard to the efficacy of this treatment: A woman, sixty-four years of age, came under treatment for arthritis deformans of four and a half years' duration. The finger-joints of both hands were greatly enlarged, very painful, and tender; it was impossible to close or separate the fingers. The movement of the wrists was also very limited and the right elbow was fixed at a right angle. Both the knees and the shoulders were enlarged and painful. The patient could not dress or feed herself. After the ninth bath the patient was so much relieved that she resumed her former occupation as a dress-maker and was able to walk up-stairs and down-stairs with comparative ease. After twenty baths she considered herself cured.

Similar hopeless cases of this disease are detailed, and the writer says that he has never seen results so immediate and satisfactory produced by any other treatment. In a number of cases of rheumatism, subacute and chronic, and of sciatica the patients were equally benefited.

Mental Therapeutics. (*Lancet*, August 29, 1896.) By A. T. Schofield, M.D.

The therapeutical influence of the mind on the body the author considers of greater practical value in the treatment of disease than has been accorded to it. Neglect of its real value he ascribes to the fear which physicians have of injuring their reputation, because mental therapeutics have been heretofore the *modus operandi* of charlatans.

A discussion of the "mind," and what is known of its relation to the body, is followed by information in regard to the practical bearing of this knowledge on disease.

The conscious mind appears to the writer to be only a very small part of the whole psychic force in us; a very small part of what he terms a vast subconscious mind on which it rests. The conscious mind has its seat in

the cortex only; the unconscious mind is connected with all life that lies below, including even reflex action. The subconscious mind is on a lower plane than the conscious, and works largely in grooves of habit, and follows closely change of associations and sensation; but its powers far exceed in the body those of the conscious mind.

The new science relating to our protective organisms shows that they can carry on without erring a thousand complicated and apparently purposive operations, and form chemical combinations that no chemist can compass. The subconscious mind takes up conscious acts and transforms them into unconscious habits. Ease and perfection in any pursuit entirely depend upon the degree in which it ceases to be connected with consciousness. It is likely that when habits or artificial reflexes are established in the brain the current of sensation and ensuing motion never goes up to the cortex at all for orders from the conscious mind, the action being short-circuited in the middle brain or basal ganglia. Sights and sounds frequently repeated are arrested in our unconscious brain and not allowed to rise to the level of consciousness. The unconscious mind is also the active agent in all voluntary conscious actions.

But the subconscious mind can do greater wonders than these. It not only carries on all the work of the body, but it can use unconsciously the highest cortical centres of thought that are ordinarily worked by the conscious mind. If the conscious mind gives the cortex some work to do, such as solving a problem, recalling a sound, a name, or a place, meanwhile occupying itself completely in some other way, the subconscious mind will step in and do the work and give the answer in a surprising way. It is probable that the subconscious mind is ever working in the cortical region in the way of deepening impressions and memories.

But it will do more than this. Of all the thousands of impressions that are being received in the cortex from various parts of the body and from our special senses, but very few are even noticed by the conscious mind, though all are registered subconsciously. We find ourselves unconsciously repeating the words or humming the tune of a new song not noticed particularly:

Our conscious mind, as compared with the unconscious mind, has been likened to the visible spectrum of the sun's rays, as compared to the invisible part which stretches indefinitely on either side. We may say that the mind includes not only the visible or conscious part, and what we have termed the subconscious that lies below or at the red end, but the supra-conscious mind that lies beyond at the other end,—all the regions of higher soul and spirit life, of which we are only at times vaguely conscious, but which always exist and contain our most abstract and spiritual faculties.

The powers of the unconscious mind are seen in a remarkable way in insanity. The sane man is one in whom the conscious mind rules. In an unsound mind the supraconscious or subconscious steps in, and overpowering

the conscious mind produces ecstatic visions and phantasms on the one man or coarse and sensual conduct on the other. In defective intellects, where the conscious mind is weak, the power of the subconscious mind is remarkably seen. When consciousness is in abeyance, as in a dream or reverie, or artificially, as in hypnotism or narcotism, the unconscious mind emerges from its obscurity, and ocular and other impressions unconsciously formed upon the brain are seen and noticed for the first time. If the unconscious mind be stimulated at such times it can exert extraordinary and apparently unlimited powers over the body. Once more, the unconscious mind is ever writing the record of the conscious mind on the body, in gait, in gesture, and in the lines of the face.

With mental therapeutics our field of action, while embracing the whole mind, is mainly the subconscious region, which not only can be treated without the knowledge of the *Ego*, but which can effect through its wonderful powers the nutrition and health of the body to an illimitable extent, and, indeed, is the real agent in most cures.

In disease, the cortex—the seat of conscious mind—is a special factor for good or evil. Every organ and function is represented there, and there brought into vital unity. Mental therapeutics can be applied to the body in one of three ways: (1) by the unconscious mind directly,—in spiritual or physical influences and surroundings; (2) by the unconscious mind acted on by the conscious indirectly,—in rousing faith in persons, remedies, or places; and (3) by the unconscious mind acted on by the conscious or direct effort,—in determination to get well, to shake off illness, ignore pain, etc. It is a powerful means of cure in all organic and inorganic diseases, while in hysteria and allied neuroses it is the only reliable means of permanent efficacy.

An illustration of cure by the second method is given as follows: At the siege of Breda, in 1625, the whole garrison was down with scurvy; the Prince of Orange smuggled into the town three small vials of essence of camphor, and his physician put three or four drops into a gallon of water, and the men recovered and saved the town.

In diseases of the nerves, as nerve irritation or nervousness and nervous debility, the brain is, as a rule, sound, and we can apply mental therapeutics unconsciously by change of scene, surroundings, etc., and consciously by direct influence and instruction. In hysteria the cause of the disease is entirely different. The nerve structures involved are probably what we may call ideal nerve centres,—that is, the seat of mental activity, conscious and unconscious. Hysteria often begins in some slight but real disease in a person with an ill-balanced or worn-out brain,—one in whom the subconscious mind has too much sway, so that its feelings ordinarily unnoticed are ever present to the consciousness. Such disease, therefore, long after it is well, continues to set up a train of associations that produces the true hysterical disease. As in child-training the unconscious power of environment and habit are far more effectual than conscious precept, so the

best cures of hysteria are effected in the same way through the unconscious mind.

The author regrets that this curative agent is so completely ignored, although its power is everywhere seen and felt. He concludes by saying that when these laws have become the subject of serious study, and when the whole science is better understood and earnestly taught in the profession, the misuse and abuse of this great therapeutic agent by ignorant quacks will largely cease and the true curative agent of nearly all diseases will at last stand revealed.

The Pathology of Itching and its Treatment by Large Doses of Calcium Chloride, with Illustrative Cases. (*Lancet*, August 1, 1896.) By Thomas D. Savill, M.D.

After presenting very fully the symptoms and characteristic phenomena of pruritus, the author enlarges upon the success he has attained in the use of calcium chloride in the treatment of this most troublesome affection. It has been shown that this drug has a very marked effect on the blood,—namely, increasing its coagulability. The distinct success the author has met with in thus relieving primary pruritus confirms the idea that the irritated state of the nerve-endings and fibrils which exists in this complaint, manifested by itching and tingling, is due to some change in the quality and composition of the blood. The paper is accompanied by a very elaborate table of cases thus successfully treated, with the remedies previously used without effect. In each case either a cure was made or great benefit obtained. The doses must be considerable—not less than twenty grains three times a day—and should be gradually increased; thirty or even forty grains have often succeeded where less have failed. As thirst frequently follows the administration of the drug, it is best to cover the salt taste with a drachm of tincture of orange-peel and one ounce of chloroform-water, in which form it is really an agreeable medicine, and would be well borne by children. The diet during its use should be restricted, no beer, sugar, or sweets being allowed, and meat only in moderate quantity. The recovery in some cases was retarded by neglecting this. The bowels should also be kept freely active. Although improvement is generally noted after the first dose, recovery sometimes does not take place until the blood has become saturated, the dosage being increased until this is accomplished. Upon recovery the dose should be gradually, not suddenly, reduced; in fact, the treatment should be continued for from one to three weeks after all symptoms have disappeared. In a few cases of long duration relief was obtained only during continuation of the drug; but a cure is more than probable, with persistence, even in these.

SURGERY.

IN CHARGE OF HENRY R. WHARTON, M.D.,

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JOSEPH P. TUNIS, A.B., M.D.,
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AND

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Medical Superintendent of the Presbyterian
Hospital.

Four Laparotomies for Tuberculous Peritonitis in the same Patient.—D'Urso (*Il Policlin.*, June 1, 1896), continuing his paper on laparotomy for tuberculous peritonitis, reports the case of a girl, aged twenty, upon whom he performed laparotomy four times in six months, with the result that for the last four and a half months there has been no sign of recurrence, and the general health has been highly satisfactory. The illness had lasted some seven months; the first operation was done on December 27, 1894, the other operations were performed on January 20, April 24, and June 11, 1895, respectively. After each operation temporary relief was noticed. Careful microscopic examination of the affected peritoneum was made each time, and as a result of this the author affirms that cure takes place in these cases by leucocytic invasion, organization of fresh connective tissue, vascular new formation, and substitution of tuberculous tissue by inflammatory neo-formations. Washing out the peritoneal cavity does not act in virtue of any particular antiseptic or antituberculous property of the solution, but mechanically by setting up a certain amount of inflammation, and the washing assists this partly through the disturbance which the sponging out of the fluid necessitates. The case is very fully reported, and drawings of the histological appearance of the pieces of peritoneum at different stages are reproduced.—*British Medical Journal*, August 1, 1896.

A Case of Fatal Pelvic Injury in a Child in which a Collection of Blood in the Prevesical Space simulated Distention of the Bladder. (*British Medical Journal*, July 18, 1896.) By Herbert W. Page.

In a clinical lecture, at St. Mary's Hospital, Mr. Page details a case in which a boy, aged seven years, was admitted to the hospital in a state of collapse after having been run over by a vehicle in the street. The external injuries seemed to point to the fact that the wagon had passed in an upward direction over the right leg and thigh and had struck against the right side of the abdomen and chest. A few drops of blood trickled from the urethra. A soft catheter apparently passed into the bladder and drew off a few drops of blood. During the night it appeared that the bladder was distended up to the umbilicus, but a catheter passed failed to draw any urine. A suprapubic opening was made and a large quantity of clotted blood removed from what seemed to be the bladder. The child died of septicæmia in a few days.

The autopsy showed the urethra torn across at the apex of the prostate. The prevesical space was filled with infected blood-clot mixed with decomposing urine. The suprapubic opening had not entered the bladder, but had simply opened up the prevesical effusion of blood. The catheter had also gone into this effusion and had not entered the bladder. There were three distinct fractures of the pelvic bones.

Had the case been diagnosed and perineal drainage instituted, it is possible the boy's life might have been saved.

The possibility of the occurrence of this condition in pelvic injuries urges the necessity of the surgeon keeping the point in mind when called upon to treat injuries in this region.

NEUROLOGY.

IN CHARGE OF LANDON CARTER GRAY, M.D.,
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GUY HINSDALE, M.D.,
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WILLIAM BROADDUS PRITCHARD, M.D., AND
New York City,

WM. G. SPILLER, M.D.,
Philadelphia.

Buccal and Cutaneous Ulcerations, Œdema, Erythema Nodosum, and Orchitis of Hysterical Origin. (*Bulletins et Mémoires de la Société médicale des Hôpitaux de Paris*, June 4, 1896.) By Fernand Vidal, M.D.

A man of fifty-five years had had gonorrhœa previous to 1891. Since 1894, although no trace of gonorrhœa could be found, he had had numerous attacks of epididymitis on one or the other side, accompanied by erythema nodosum on the lower limbs, lasting only a few days. In 1895 œdema of the left arm with cyanosis was observed several times after tests of sensation. In September, 1895, he was seized with violent lumbar pains from no known cause, and a considerable amount of albumin was found in the urine during four days. The alarm produced by these symptoms caused a convulsive attack lasting two hours, which was followed by temporary œdema of the right lower limb without pain and without fever. The erythema nodosum appears now on the lower limbs after the least excess or fatigue. Once only Dr. Vidal has been able himself to observe this orchitis. It appeared suddenly, the right testicle was very painful, hard on palpation, double the ordinary size, and the pain radiated along the spermatic cord and into the hypogastric region of the corresponding side. There was no rise of temperature. The following day the testicle was smaller and less painful; after three days all pain had ceased and only induration of the epididymis on each side—the remains of repeated inflammation—could be noticed.

Dr. Vidal observed also that buccal ulcerations accompanied each time the attacks of erythema nodosum. Most of the physicians who had seen this patient ascribed all these trophic troubles to hysteria. Simultaneity

of the symptoms was in favor of this view. The patient had also irregular patches of cutaneous hyperæsthesia, and an extremely sensitive spot in the sacral region. The albuminuria may have been due to hysterical congestion. The testicles were not atrophied and not indurated after the attacks. The tumefaction of the testicle was not due to a serous effusion into the tunica vaginalis.

The Spinal Lesions caused by the Tetanus Toxine. (*Comptes Rendus des Séances de la Société de Biologie*, July 4, 1896.) By G. Marinesco, M.D.

Marinesco examined the spinal cord from three guinea-pigs which had been inoculated with the tetanus toxine. He found diffuse hemorrhages in the gray substance most numerous in the anterior horns, the chromatophilic elements of the nerve-cells smaller and altered in shape, in some places changed into granules scattered through the cell-body. In certain preparations these elements had disappeared at the periphery of the cells, as has been seen also in hydrophobia and anæmia of the spinal cord from compression of the abdominal aorta; in other preparations they had disappeared also at other parts. The protoplasmic processes presented lesions similar to those of the cell-body. The achromatic substance was more stained than is usual. In some preparations where the configuration was preserved the entire cell was deeply stained and the altered chromatophilic elements could scarcely be seen. The changes were found in the cells of the posterior as well as of the anterior horns. In the earlier stages the nuclei were not much affected, but in the later their contour was less distinct, the coloration more intense, and the nuclear net-work had disappeared. The neuroglia-cells were larger. After the tetanus had become chronic degenerative lesions were found in the white substance and were probably due to alteration of the column-cells.

The Intramedullary Course of the Posterior Roots in the Cervical and Superior Thoracic Regions of the Spinal Cord. (*Comptes Rendus des Séances de la Société de Biologie*, June 27, 1896.) By Professor Dejerine and A. Thomas, M.D.

A woman who had been infected with syphilis nearly twenty years previously began to suffer from violent pains in the left shoulder and arm; after four months paralysis and atrophy were noticed in the muscles of the thenar and hypothenar eminences and in the interossei of the left side. The flexors of the fingers and the deltoid were weakened; the supinator longus, the radial muscles, extensors of the fingers, biceps, triceps, and the brachialis anticus were still vigorous. The olecranon reflex was absent. Sensation was diminished in all qualities on the internal border of the forearm and hand in the region corresponding to the distribution of the ulnar and internal cutaneous nerve. Faradic excitability was lessened

chiefly in the ulnar nerve, and there was partial reaction of degeneration. The ulnar nerve also was very painful on pressure.

Sight had been lost in the left eye simultaneously with the appearance of right-sided hemiplegia associated with paralysis of the left third nerve.

At the autopsy a very small tumor was found upon the left optic nerve, another upon the left oculomotorius. In the cord the right pyramidal tract was degenerated. The eighth cervical and especially the anterior root of the first thoracic nerve of the left side were degenerated, the dura was thickened at this part by a gummatous infiltration. The left column of Burdach above the lesion was much degenerated, and at the level of the fourth cervical roots the degenerated area involved the cornu-commisural zone. The column of Goll was not involved. Below the lesion, at the level of the second thoracic roots, was a small area of degeneration near the left posterior horn, which probably represented the descending branches of the degenerated posterior roots. The left anterior horn, at the level of the eighth cervical and first thoracic roots, was small and contained few cells, as the result of retrograde degeneration.

This case offers an explanation for some of the syphilitic ulnar paralyses. The ulnar nerve was chiefly involved, but other branches of the brachial plexus were not intact. The eighth cervical and first thoracic roots furnish fibres to the ulnar and internal cutaneous, but also to the median, radial, and circumflex nerves.

Pathology of Multiple Sclerosis. (*Arbeiten aus dem Institut für Anatomie und Physiologie*, No. iv., edited by Professor Obersteiner.) By Emil Redlich, M.D.

Redlich has examined microscopically about twenty cases of multiple sclerosis. There are three chronic forms :

1. The dense sclerotic patches as seen especially in the posterior columns. These in transverse sections of the cord are formed of granules or points, very fine parallel fibrillæ and neuroglia-cells containing two or more nuclei or even no nucleus at all. The processes of these cells are usually very distinct, more numerous than is normal, and appear thick and shiny. Many of the fibrillæ, especially the coarser, can be traced to these cells, but appear often merely to pass through them, as Weigert has described for the normal neuroglia. In longitudinal sections these fibrillæ have a vertical, parallel, dense arrangement, and are slightly wavy, the same is seen in transverse sections about the vessels. The granular appearance is due to transverse section of the fibrillæ. Scattered nerve-fibres are found more or less altered in the sclerotic mass, most of them show changes in the medullary sheaths, which may even be absent; the axis-cylinders may be normal, usually, however, are either swollen or diminished in size. These sclerotic foci pass by gradual diminution in the size of the trabeculæ into normal tissue. Few nerve-fibres are found in the centre of such foci.

2. A second type consists of coarse neuroglial trabeculæ which do not

form distinct foci, they are formed by a thickening of the neuroglia normally present, partly by division of the neuroglia-cells, as indicated by several nuclei in one cell, but chiefly by increase in the neuroglial fibres. It is impossible to decide whether all the fibrillæ are in connection with the neuroglia-cells. Weigert has shown that in adult man the fibrillæ completely lose their connection with these cells. There is no proof for the hypothesis that these fibrillæ are formed from the medullary sheaths or axis-cylinders, it is more probable that they are true neuroglial fibres. The walls of the vessels within the foci are often much thickened, poor in cells, and have undergone hyaline degeneration. In the larger vessels usually all three layers are involved and the lumen is narrowed. The neuroglia about the vessel is much thickened. It is not true that in the centre of every focus an altered vessel may be found. These sclerosed vessels are often irregularly located within the foci, and areas of sclerosis are found without greatly diseased vessels. The vascular changes cannot therefore be considered primary.

3. A third form consists of a loose net-work of slightly thickened trabeculæ with neuroglia-cells at the points of intersection. The meshes are empty. Such foci stained with carmine appear light, and are usually near the dense sclerotic patches and the periphery of the cord. They are probably due to a relatively rapid destruction of nerve-fibres.

The patches in multiple sclerosis are often symmetrical, are noticed quite frequently on both sides of the anterior fissure, do not correspond to the territory of any of the vessels, and are less important in the lower parts of the cord. The motor ganglion-cells are very resistant to the sclerotic process.

In the subacute forms the changes are somewhat different. Fatty granular cells and other products of the acute degeneration of the myeline are noticed; the formation of large spaces is characteristic. The trabeculæ are sometimes a little thickened. The vessels are distended and their walls infiltrated with mononuclear, probably chiefly granular cells.

Sclerotic foci are common in the pons, but rare in the mid- and inter-brain, and not uncommon in the medullary substance of the cerebral hemispheres, they have never been observed in the peripheral nerves; there is nothing histologically characteristic about them except their arrangement.

The process is not truly inflammatory, as there are no extravasations nor swelling of the tissue; it is more degenerative, and probably begins in the nervous elements.

Acute Myelitis from the Toxines of Streptococci and Staphylococci. (*Comptes Rendus des Séances de la Société de Biologie*, May 30, 1896.) By H. Claude, M.D.

Two guinea-pigs were inoculated beneath the skin of one posterior paw with filtered culture of streptococci and staphylococci. Acute myelitis resulted, characterized in one case by spastic, in the other by flaccid paraplegia.

The spinal lesions consisted of small hemorrhagic foci in the gray substance and accumulations of round cells, especially about the ganglion-cells, some of which they had penetrated. The ganglion-cells not thus invaded presented alterations more or less accentuated, consisting of disintegration of the protoplasm, formation of vacuoles, and changes in the situation and structure of the nucleus. The white matter was in general intact. The small vessels presented marked inflammatory lesions, even thrombosis. The nerves examined appeared normal. Inoculation with the same bouillon in other animals did not produce paralysis.

There have been comparatively few cases recorded of myelitis from microbic intoxication. Intense alterations occur in the nervous system, due to toxins alone, as seen in infectious diseases from products elaborated within the body by the micro-organisms. The streptococci and staphylococci are probably the cause of many cases of myelitis.

Action of the *Streptococcus* and its Toxines upon the Nerves, the Spinal Ganglia, and the Spinal Cord. (*Comptes Rendus des Séances de la Société de Biologie*, May 23, 1896.) By Professor E. A. Homén (Finland).

Dr. Homén employed in his experiments streptococci which he had rendered especially virulent by inoculation from one animal to another, and by exposure of the inoculated animals to a low temperature. He injected the micro-organisms from bouillon culture directly into the sciatic nerve just above the knee or into the spinal cord. Dr. Laitinen performed similar experiments with the toxine.

In the animals inoculated with the micro-organisms a little caseo-purulent infiltration was noticed about the nerve at the point of injection, and if examination was made within the first week the vessels of the nerve were found injected, the nerve was swollen and œdematous, the spinal meninges, especially of the lumbar region, were also often found injected. Other portions of the body revealed the effects of the microbic invasion.

After injection of the toxine local irritation within this period was unusual, or at least of very mild degree, the vessels of the nerve, as a rule, were not injected, and the nerve was not as swollen as after injection with the micro-organisms.

The histological alterations due to inoculation with micro-organisms were found throughout the nerve, and usually in the corresponding spinal ganglia and roots, as well as in the cord. Within the nerve the intensity of the process diminished in proportion to the distance from the point of inoculation. The changes consisted of round-cell infiltration, small hemorrhages, and destruction of nerve-fibres; in the spinal ganglia and roots these were relatively slight and more pronounced in the posterior roots than in the anterior. The lesions were least noticeable in the cord, although more evident in the lumbar region than elsewhere, and consisted of injection, small hemorrhages, some leucocytic infiltration, alteration of nerve-

fibres in small patches, especially at the periphery of the cord and along the posterior septum, and in some cases destruction of a portion of the cells of the anterior horns.

In animals inoculated with toxine there was less infiltration of leucocytes in the nerves, but the changes in the spinal cord and posterior ganglia were about the same.

Micro-organisms were detected in the nerves and cord by means of cultures and the microscope. These experiments are in favor of the opinion that many spinal affections are of a toxic or infectious nature, and of the possibility of the much-disputed ascending neuritis.

Hemorrhage and Œdema of the Brain. (*Bulletins et Mémoires de la Société médicale des Hôpitaux de Paris*, June 4, 1896.)

Gilles de la Tourette reports two cases of apoplexy which he considers as hysterical. Trophic lesions, such as œdema and hemorrhage, as observed elsewhere in the body, may exist in the brain, according to his view. Hysterical hæmatemesis, hæmoptysis, and ecchymosis are well known; there is no reason why similar lesions should not be found within the cranial cavity. There was no autopsy in either of his cases; if there had been, the hysterical nature of a hemorrhage could not have been demonstrated in this way.

These remarks led to the report of two cases of transitory infantile hemiplegia by Drs. Sevestre and Rendu, which they believe were due to cerebral congestion and œdema, and of two cases of Jacksonian epilepsy by Drs. Siredey and Hayem, in each of which the diagnosis of brain tumor seemed assured, but in which no lesions were found at the autopsy.

CLIMATOLOGY.

IN CHARGE OF GUY HINSDALE, M.D.,
Philadelphia.

Rarity of Pneumonia in Florida. (*Transactions of the American Climatological Association*, 1896.) By Dr. Frank Fremont Smith.

Dr. Smith showed that pneumonia is a very rare disease even among the colored population. At the Alicia Hospital, St. Augustine, where the entire number of cases treated in six years preceding May 1, 1896, was seven hundred and twenty, the whole number of cases of pneumonia is five, three of which were importations.

The official record of St. Augustine from May 1, 1878, to February 1, 1892, indicates one thousand four hundred and thirty-five deaths from all causes; among these forty deaths were from pneumonia. Dr. Anderson, of St. Augustine, reported that he had not seen more than six cases of croupous pneumonia in twenty-five years' practice.

POINT PINELLAS, FLORIDA.—This is a peninsula on the west coast, be-

tween Tampa Bay and the Gulf of Mexico. The bay sends various prolongations or minor bays into the coast and connects with the interior by rivers, bayous, or lakes. The climate of the whole region is mild and equable, and the soil fertile. The peninsula embraces above one hundred and sixty thousand acres, and is free from marshy ground and is bordered by a fine beach. The latitude $27^{\circ} 41'$ renders frost a rarity. Point Pinellas has a climate well adapted for cases of genito-urinary tuberculosis, being equable, warm, and not too dry; out-door life is possible to patients throughout the year, and there is abundant opportunity for amusement, especially on the protected bays. High, cold, dry climates are unsuitable for renal cases or for any cases where hepatic or pelvic congestions exist. The principal town on the peninsula is St. Petersburg, where visitors will find ample accommodations.

The Climate of New Mexico. (*Medical Record*, June 13, 1896.)
By Francis W. Gallagher, M.D.

Las Vegas, at an altitude of six thousand five hundred feet, is a busy modern city with excellent accommodations for visitors. The springs are renowned and the baths much used. Dr. Gallagher calls attention to the neglected and almost unknown Mexican village of Socorro, which has fine possibilities as a resort. It is situated on a plain which slopes from the base of the Socorro Mountain a mile distant to the Rio Grande. The water supplying the town comes from two hot springs in the mountain in a volume sufficient to supply a town of thirty thousand persons with water for household use. The water is free from mineral ingredients or organic matter. Elevation four thousand five hundred feet. Unfortunately, there are at present no adequate accommodations. Las Cruces is one hundred and thirty miles south of Socorro, in the Mesilla Valley, but at an altitude of four thousand feet. It abounds in fruits and wines, and is stated to be the best winter point in the Territory.

The Waters of Glenwood Springs, Colorado. (*Medical Record*, June 13, 1896.) By Henry H. Schroeder, M.D.

The author states that the effects of prolonged hot and vapor baths are produced by the stimulation of the sensory cutaneous nerves, which exercise an important influence on the most complicated processes of the organism by means of the reflex actions transmitted through the central nervous system. Anything which tends, then, to intensify the stimulation of the peripheral nerves will favor greater activity of the different vital functions. That saline ingredients act as additional excitants may easily be demonstrated by noting the greater redness of the skin after a hot brine bath as compared with its appearance after a plain hot bath. Paalzow's experiments prove that a strong stimulation to the skin produces a reflex conversion of tissue, indicated by an increased consumption of oxygen and excretion of carbonic acid. Brunton recommends the addition of common salt to the water to

increase the stimulation of the skin and the amount of after-reaction. The gratifying results obtained at Glenwood I fully believe to be largely due to the decided stimulation of the skin occasioned by the extraordinarily large amount of mineral ingredients in the water.

These waters contain one thousand two hundred and fifty grains of salts to the gallon, chiefly sodium chloride. Carbonic acid gas and hydrogen disulphide are given off in large amounts at the springs. These are fifty in number, but only a few are utilized, yielding, however, two thousand gallons of water per minute. The baths are of great value in the treatment of chronic rheumatism.

FORENSIC MEDICINE.

IN CHARGE OF LORENZO D. BULETTE,
Of the Philadelphia Bar.

FAILURE OF ATTENDING PHYSICIAN TO SEND, AS PROMISED, A SPECIALIST TO ATTEND HIS PATIENT NOT MALPRACTICE.

IN an action by the plaintiff, Mrs. J., to recover damages for the loss of an eye, alleged to have been caused by the negligent and unskilful treatment of the defendants, her attending physicians, it appeared that they treated the plaintiff for typhoid fever, and that, as a result of the treatment, she recovered. While sick, the plaintiff's eye became affected, and she requested the defendants to send her an oculist, which they promised but neglected to do. An oculist, who was afterwards procured by another person, stated that he could do nothing, but that, if he had been called sooner, he might have effected a cure. It was decided that it was not the defendants' duty to provide the specialist, and, as the evidence failed to show that the injury to the plaintiff's eye was the result of the fever, the plaintiff was properly nonsuited.¹

The facts of the case, as they appear from the evidence produced at the trial, are as follows: In September and October, 1891, Mrs. J. was prostrate with typhoid fever in the city of E. She employed Drs. W. and C., a firm of physicians, practising their profession in that city, to attend upon and treat her for her disease. She was in their care for about two months. While she was lying sick, her left eye was attacked by an affection which finally deprived it of the power of sight. She brought this action against Drs. W. and C. to recover damages for the loss of the use of her eye, alleging that the deprivation was due to the unskilful treatment by the defend-

¹ Jones vs. W., 45 Pac. Rep. 234 (1896).

ants of the disease from which she was suffering. The evidence for the plaintiff consisted of her own testimony and that of two doctors,—one a physician in general practice, and the other an eye, ear, and throat specialist. Her testimony was that both the defendants were in attendance on her during her illness,—Dr. C. for the first three weeks, and Dr. W. afterwards,—and that, as the result of their treatment, she was cured of typhoid fever. She stated that while Dr. W. was attending her, she had a pain in her eye, and noticed that the sight was beginning to leave it, whereupon she feared the loss or partial loss of the sight through the fever, and asked him to send her an oculist, so that her eye might have proper care; but he laughed at her, and told her there was nothing the matter with her eye. However, on her repetition of the request, he promised to send her an oculist, but did not, stating he had forgotten the matter. At last the nurse who had charge of her telephoned for Dr. D., an oculist, who came in response to the message. She stated that Dr. D., upon examining her eye, said he could do nothing for her, but that, if she had sent for him sooner, he might have done something. Dr. H., the specialist, testified that he examined the plaintiff's eye in March, 1893. He said it showed a cataract almost completely formed, but that he was not able, from his examination, to determine its character, and would not undertake to say what caused it. The remaining witness, Dr. J., testified that he did not make the eye a specialty, but that he had helped specialists in his general practice to operate on cataracts. His testimony was that typhoid fever, in its severe forms, in some cases, leaves injurious effects upon the eye. He gave an instance of a lady, from the town of P., who was sick with typhoid fever, and whom he attended, and in whose case a cataract was the direct result of typhoid fever. He testified to an examination of the plaintiff's eye, but did not state what was the nature of his examination, or what it disclosed. Upon the foregoing testimony the plaintiff rested her case, and was nonsuited on motion of the defendants. And, in affirming this judgment of nonsuit, the District Court, on appeal, in an opinion by Mr. Justice Thomson, said, "The plaintiff employed the defendants to treat her for typhoid fever. There was no evidence, and, in fact, no complaint, that they did not bestow upon her all the attention and skill which the nature of the disease and her condition required. Indeed, she stated herself that she was cured of the fever as a result of their treatment. How far and under what circumstances they might be responsible for any after-effects of the disease we shall not inquire, because there was no evidence whatever that the injury to the plaintiff's eye was the result of the fever. The only charge in the complaint which was proven was that Dr. W. failed to send her an oculist after he had promised to do so. The defendants were employed to treat her for fever, and their employment imposed no duty upon them to provide her with a specialist for her eye. She seems to have had no difficulty in procuring one when she set about it, and presumably he could have been gotten just as readily at first. The nonsuit was properly granted, and the judgment will be affirmed."

BOOK REVIEWS.

ANNUAL MEDICAL AND SURGICAL REPORT OF THE PRESBYTERIAN HOSPITAL IN THE CITY OF NEW YORK. Edited by Andrew J. McCosh, M.D., and Walter B. James, M.D. Vol. I., 1896. Knickerbocker Press, New York.

This year the Presbyterian Hospital of New York makes a new departure by publishing a report devoted entirely to a review of the medical and surgical work of the year. It contains, in addition to the usual statistical tables of cases admitted and discharged and list of operations performed, a series of articles by the physicians, surgeons, and pathologists of the hospital, giving the fruits of their experience with the more interesting cases. Many of the papers are of considerable interest, and a few of them have already appeared in the magazines. There is an exceptionally good series of genito-urinary cases, the pathology and surgery of the kidney, bladder, and prostate being well exploited. F. Tilden Brown describes his new and ingenious method for amputation at the hip-joint, and Fell's method of artificial respiration is again proven efficacious by the description of a number of cases in which it was practised, with O'Dwyer's modification, using an intubation-tube in place of the face-mask or tracheotomy-tube. The surgical papers rather overshadow the medical in bulk, but there is a very interesting paper on caisson disease, with observations on twenty-four patients admitted to the wards. A consideration of the amount of clinical material which is wasted, so far as educational purposes are concerned, in our large hospitals, should be an incentive to the staffs of other institutions to follow the example of the Presbyterian Hospital, and give the professional world at large just such reports as we have here.

H. R. W.

DIAGNOSIS AND TREATMENT OF DISEASES OF THE RECTUM, ANUS, AND CONTIGUOUS TEXTURES. DESIGNED FOR PRACTITIONERS AND STUDENTS. By S. G. Grant, M.D. Philadelphia: F. A. Davis Company, 1896.

A practical and fairly comprehensive review of the teaching of the day on this subject. Not the least valuable articles are those contributed by Herbert Allingham on colotomy and cancer. A new departure is made in devoting a chapter to the subject of rectal diseases among railroad employés, calling attention to the prevalence of rectal affections among this class, irregular habits of life, maintenance of erect posture, and the constant jar being ascribed as etiological factors. The author is an advocate of the treatment of hemorrhoids by cautery, a method of treatment which is now widely and satisfactorily employed. There are a number of full-page colored illustrations, some of them, owing to brilliancy of coloring in subjects and background, being more striking than artistic. The work, as a whole, can be recommended to the profession as a safe guide to follow in the treatment of rectal diseases.

H. R. W.

A MANUAL OF OBSTETRICS. By W. A. Newman Dorland, A.M., M.D., Assistant Demonstrator of Obstetrics, University of Pennsylvania, etc. Philadelphia: W. B. Saunders, 1896.

In this small volume, of 750 pages, the author has carefully carried out his idea of a systematic presentation of the subject of obstetrics, as recognized by its leading

teachers. He divides the subject into physiological and pathological obstetrics, and takes up as nearly as possible under each of these the events as they occur.

This is an excellent arrangement for the student, but we think would be more so if the subdivisions, and especially the paragraphs, were more plainly marked.

The chapters on extra-uterine pregnancy, placenta prævia, the mechanism of normal labor, and dystocia are clear, concise, and well written. To the agitated subject of puerperal sepsis the author gives much space. "The pathological conditions of the fœtus" does not seem to be as carefully written as other parts of the book.

The diagnostic tables are a distinct feature. They are numerous and carefully prepared. The illustrations, although not profuse, are excellent, and well chosen to elucidate the subject. Altogether, we consider the book thoroughly practical and of particular advantage to the student.

I. H. G.

AN INQUIRY INTO THE DIFFICULTIES ENCOUNTERED IN THE REDUCTION OF DISLOCATIONS OF THE HIP. By Oscar H. Allis, M.D. Samuel D. Gross Prize Essay. Philadelphia, 1896.

Dr. Allis has fairly earned the honor conferred upon him by the trustees of the Gross Prize Fund. The essay which he has written is a contribution of lasting value to our fund of information on the above subject. Long and careful work in the dissecting-room has demonstrated that there was still something to be learned from the anatomical side, and the author has brought his well-known ingenuity into play in the solution of the problems met there, in experimental work as well as in the clinic-room. There is probably no department of surgery in which a knowledge of mechanical principles is so necessary as in the study of dislocations, and Dr. Allis abundantly proves his ability to handle the subject from this aspect. He attacks some time-honored views, as when he questions the possibility of the production of these dislocations by "thrust," and the existence of the obstacle to reduction afforded by the "slit in the capsule," but his reasoning here, as in the discussion of the relative merits of reduction by the "direct method" and "circumduction," in which he favors the former, is clear and forcible. We strongly recommend the book to all interested in the study of hip-injuries.

H. R. W.

NEW YORK EYE AND EAR INFIRMARY REPORTS. Vol. IV., Part I. The Knickerbocker Press, New York. 8vo, pp. 105. Price \$1.00.

This publication is made up of contributions by the surgeons, assistant surgeons, and house-staff of the infirmary, and the present volume has fourteen articles purely clinical in their scope, relating to diseases of the eye, ear, nose, and throat.

Several of them are of very special importance, relating, as they do, to rare conditions or to groups of cases seen only in large institutions in sufficient numbers to be of importance. From this point of view some of the articles should give more details and conclusions, since the advantages enjoyed by the writers would warrant them, but all are valuable contributions to the literature of the special subjects treated, in convenient form, very readable, and should not be absent from the library of the clinician in these branches at least.

L. A. P.

A TREATISE ON APPENDICITIS. By John B. Deaver, Surgeon to the German Hospital. Philadelphia: P. Blakiston, Son & Co., 1896.

Dr. Deaver is well known as one of those surgeons who, after a large experience with appendical inflammation, holds the most radical views as to its treatment, and is ever forward in defending them. This he does at considerable length in the profusely illustrated volume before us, which may be taken as Dr. Deaver's defence of his position. The anatomy of the appendix and the pathology, symptomatology, and treatment of inflammation of this much-discussed organ are taken up in detail, and

throughout all, to the end in view, is justification of the author's stand-point. The chapter on anatomy is clear, concise, and accurate, as might be expected from a teacher of Dr. Deaver's experience. The articles on symptomatology and differential diagnosis are good, the important points are well brought out; great stress is laid on what are styled the three cardinal symptoms,—pain, tenderness, and rigidity. From a pathological side the book is disappointing. There is a looseness in the use of terms in describing pathological specimens, and a lack of detail which robs the case histories of much of their value. It is to the practised pathologists rather than to the practical surgeon that we must look for advance in this direction. The treatment preferred can be summed up in one word, "operation," and that as soon as the diagnosis is made. To many surgeons of wide experience this view will appeal in vain for support, as will the author's concurrence with Ribbert's statement that but sixteen out of four hundred cases permanently recover under medical treatment, and the same, perhaps too conservative, gentlemen will question the wisdom of attempting to remove the appendix in every case of abscess. We have seen many cases of appendical abscess opened and drained where it did not seem wise to make an extensive separation of the tissues to hunt for the appendix, in which the recovery was satisfactory, and no recurrence of the disease has taken place in a number of years. In many of such cases the appendix has probably sloughed off or been obliterated. The discussion which the book has already aroused shows that some at least of these men are unconvinced, and that we have not yet reached the end of the argument. The book is illustrated with many rather highly-colored drawings of specimens, with notes of the corresponding cases, and a very good series of cuts showing the stages of the operation of removal of the appendix.

H. R. W.

A SYSTEM OF MEDICINE. By many writers. Edited by Thomas Clifford Allbutt, M.D., Regius Professor of Physics in the University of Cambridge, etc. In five volumes. Price per volume, cloth, \$5.00. New York and London: The Macmillan Company.

It is gratifying to the American reader to see that the first article in the elaborate system emanating from Great Britain is the work of one of our countrymen, Dr. John S. Billings. This system is the work of over fifty authors, comprising the most distinguished English writers, and, in addition, from the United States we find contributions from Dr. John K. Mitchell and Dr. M. Allen Starr.

Dr. Billings in less than twenty pages gives us a summary of medical statistics including both mortality and morbidity records. The latter are necessarily defective, except as relates to the army and navy, owing to the absence of any system of registration further than for a few of the infectious diseases. The morbidity of tuberculosis, important as it is, is thus an unknown quantity. Dr. Billings brings out in a very interesting way the wonderful differences between various nationalities in reference to the death-rate from phthisis. It would seem probable that the Jewish race possesses a distinctly higher degree of immunity against the bacillus of tuberculosis and the micrococcus of pneumonia when compared with other races. Taking the statistics of deaths for the six years ending May 31, 1890, for the Irish, the Germans, the Russian and Polish Jews, the American white offspring of American mothers, and the colored,—all in New York City,—it was found that the average annual death-rate from consumption per 100,000 of population was: For the Irish, 645.73; colored, 531.35; Germans, 328.80; for the American whites, 205.14; and for the Russian and Polish Jews, only 76.72. In the last-named race there was only one-half the mortality from pneumonia observed among the negroes and the Irish. Inquiries of this kind immediately give rise to questions which we have not here space to discuss, but in the solution of these problems we always have to fall back upon governmental aid.

Dr. John Beddoe, who writes the chapter on anthropology and medicine, calls to

his aid "the gigantic series of anthropological medical statistics which we owe to Dr. Baxter and to the American Civil War."

In discussing temperament, Dr. Rivers calls attention to the excellent work of Professor Kræpelin, of Heidelberg, who has been making an investigation of the fundamental properties of the mind, which are of great importance in the study of temperament.

Mr. Jonathan Hutchinson discusses briefly the laws of inheritance in disease, and the medical geography of Great Britain is concisely described by Haviland. The attempts to show the distribution of heart-disease, for example, are not productive of any special result, although two pages are used in the effort.

The chapter on inflammation, in ninety-five pages, is from the hand of Professor John George Adami, of Montreal. In the lists of authors we find in this instance a reversal of names. The author defines inflammation "as the series of changes constituting the local manifestation of the attempt at repair of actual or referred injury to a part, or briefly, as the local attempt at repair of actual or referred injury." A valuable classified bibliography accompanies this article.

In the chapter on the doctrine of fever Dr. J. Burdon Sanderson refers to some very interesting experiments by Maragliano, who, by the aid of Mosso's plethysmograph, demonstrated the changes of volume of the limbs in fever. It was first ascertained that in healthy persons, after a meal, the volume of the arm, as thus measured for a number of hours, slowly declines as the time which has elapsed since taking food increases, and that the rate of this decline is uniform.

In ague it was found that the accession of an attack is marked by a very obvious diminution of volume which is antecedent to the rigor; and that in the crisis likewise an increase of volume is always the harbinger of the critical thermolysis. As to the cerebral heat-centres, Professor H. C. Wood receives due credit for his discovery in 1880, that injury of a certain part of the cortical motor area which surrounds the crucial sulcus in the dog produces pyrexia. Dr. Wood also points out, as noted by Sir Joseph Fayrer, the veteran surgeon-general of India, that when death occurs suddenly during great exhaustion or muscular action with fatigue, it may be due to coagulation of the cardiac myosin, an event which is likely to occur during any great muscular exertion at a much lower temperature than usually determines it when there is no great muscular exertion. For example, men fighting in a very high temperature, or, for that matter, working hard in times of peace, may fall dead suddenly when exposed to the direct or indirect heat rays. Sir Joseph would, no doubt, be very much interested in the recent studies of Dr. Ira Van Gieson, of the New York State Pathological Institute, who has approached this subject from the stand-point of pathological chemistry.

The pathology of nutrition is treated by Dr. F. W. Mott, and contains the latest additions to our knowledge in this field. Messrs. Shattock and Ballance state in their article on the general pathology of new growths that they have tried the effects of subcutaneous injection of a fifty per cent. glycerin extract of carcinoma and sarcoma, hopeless cases being selected for treatment. The injections in one case of mammary carcinoma exceeded fifty in number, ten different carcinomata being employed. No local reaction ensued and the procedure in no case retarded the growth and multiplication of the tumors. Fresh sheep serum, which comes from an animal supposed to enjoy a natural immunity, also gave negative results. The authors refer to Coley's method of injecting the combined toxins of *Streptococcus erysipelatis* and *Bacillus prodigiosus*, but they do not seem to have used them. They caution operators to avoid using a knife for the division of healthy tissues after it has once been infected with the juice of the tumor, lest the seeds of recurrence be sown along the freshly-cut surfaces.

The article on the principles of drug therapeutics, by Dr. Daniel J. Leech, is quite largely historical and, so far, entertaining. The articles on climate and aëro-

therapeutics, by Herman Weber, Michael Foster, and C. Theodore Williams, are worthy of this distinguished trio. The American reader naturally looks to see what they have to say about the American resorts and climates, and it is gratifying to find our principal resorts truthfully characterized. Much of the reputation which our Colorado climate has acquired among our English *confrères* is due to the personal observation and writings of Dr. Charles Theodore Williams. His presidential address before the Royal Meteorological Society in 1893, on the high altitudes of Colorado and their climates, was an admirable and a valuable contribution to climatology. In one respect Drs. Foster and Weber fail to do us full justice. They place the range of temperature in the interior of continents at 100° F. In the State of Pennsylvania, however, there are localities where the range is over 120° F., and in Minnesota and the Dakotas it takes 140° F. to cover the extremes of temperature.

One of the devices for providing an artificial climate mentioned by Dr. Williams is the pneumatic cabinet, an American invention. This much-discussed apparatus has been used in the Brompton Hospital with some degree of success. A committee appointed to investigate its capabilities showed that it caused (1) increase of chest circumference, (2) increase of spirometric capacity, and (3) in many cases of consolidation, diminution in the area of dulness. The cabinet was found less successful as a vehicle for medicinal agents. Caution is necessary, as hemorrhages have followed its use and the temperature of some cases of pyrexia has been increased.

Mineral springs are described by Herman Weber, who gives due credit to our wealth of mineral waters.

In the article on electricity Dr. H. Lewis Jones discards the terms franklinism, galvanism, and faradism, speaking instead of "electrostatic methods, of treatment by the battery current, and of treatment by the induction coil current." The term "battery current" does not meet the requirements of the case, for even one or two cells may properly be designated by the term battery even when used to produce the induction current. The term multiple battery current would answer better, although that does not fully describe the current. Regarding the electrical methods of Apostoli, for the treatment of uterine fibroma, the author says they "have fallen into discredit in this country, but no doubt there is some value in his treatment. . . . It is quite possible that it may again be revived here." This has been a burning question among our gynecologists, and after a great deal of acrimonious discussion the subject has lapsed into a deserved desuetude.

The chapter on massage, by Dr. John K. Mitchell, is thorough and concise. Here again the work of Americans comes to the front, as evidenced by the adoption of the "rest cure" the world over.

Sir Dyce Duckworth treats in a clear and orderly style the subject of the general principles of dietetics in disease. Specific directions are furnished which cannot help being of value, coming from a man of such experience and good judgment as this well-known author. The same may be said of Eustace Smith's contribution on the diet and therapeutics of children.

Next follows a chapter on nursing, by Miss Amy Hughes, who has been asked to write in order that medical men may know what to expect of their nurses. This is a timely and succinct account of what we ought to expect, and shows that the author has high ideals of her duties, and her influence upon nurses in training must be of the very best. We should be very glad if reprints of this article could be placed in the hands of every nurse in training. Physicians are too lax in their requirements or too reluctant to speak the word of advice or correction when brought in contact with a tactless or careless nurse. As the writer says, "The gravest fault, short of negligence, is love of gossip, personal or professional. To talk to patients about their ailments and treatment, to describe other cases to them, to indulge them in medical histories, and to discuss the comparative merits of medical men work infinite harm, especially to those of nervous temperament, who are chiefly disposed

to seek such confidences." Miss Hughes fixes twenty-three to twenty-four as the earliest age at which a nurse should begin her training. One thing she says which we decidedly object to, at least for American patients and an impossibility in the American climate,—a temperature to be maintained at 50° to 60° F. for surgical wards. She allows 60° to 65° F. for the medical wards. In the United States, in the cooler season, we usually find it desirable to maintain our wards at from 68° to 70° F., but in the summer months even these are an impossibility. The author's reference to sal-alembroth will need an explanation for the benefit of American readers, as it is a term for the combination of corrosive sublimate with ammonium chloride.

The hygiene of youth and the subject of life assurance are briefly discussed. Eighty pages are devoted to the general pathology of infection by Dr. A. A. Kanthack, the lecturer on pathology at St. Bartholomew's Hospital. The subject is ably discussed. His conclusions as to the use of antitoxin in diphtheria are that its success is so undoubted as to silence all opposition. Dr. Herringham, in his article on the serum treatment of this disease, corroborates these conclusions. We cannot refrain in this connection from calling attention to the vigorous article by Baginsky, of Berlin, printed in the *Medical Record* of August 8, in this year, in which he handles without gloves one who has tried to throw discredit on the successes of the German hospitals in the use of this remedy. Kanthack believes that many failures in the treatment of diphtheria in this way have been due to inadequate dosage, while of course advocating the additional use of local antiseptics and tonics.

Puerperal septic disease is treated by Playfair, who gives sound advice as to the use of intra-uterine antiseptic irrigations. Medicinally he advises in the early stages twenty grains of antipyrin combined with thirty minims of sal volatile to counteract depression. He also advises quinine in twenty-grain doses night and morning.

Influenza is discussed by Goodhart, enteric fever in an elaborate manner by Julius Dreschfeld, and cholera by Macleod.

The system is the best exponent of British teaching and practice as it exists today. The contributors are men of ripe experience, and the editor has so well planned the work of the series of volumes that we shall look with great interest for their appearance. The presswork is excellent. We have failed to discover a single typographical error in the volume examined. G. H.

A MANUAL OF THE PRACTICE OF MEDICINE. By George Roe Lockwood, M.D., Professor of Practice in the Women's Medical College of the New York Infirmary; Attending Physician to the Colored Hospital and to the City (late Charity) Hospital; Pathologist to the French Hospital; Member of the New York Academy of Medicine, of the Pathological Society, of the Clinical Society, etc. 12mo, pp. 935, with 75 illustrations in the text and 22 full-page colored plates. Cloth \$2.50. Philadelphia: W. B. Saunders, 1896.

In the preface of this book, which is one of Saunders's New Aid Series, the author hopes "that the work will meet the requirements of those who heretofore have been obliged to resort to the larger works of reference with which medical literature is so well supplied." Your reviewer considers this statement to indicate a misguided ambition. Why increase the number of works of this kind when there are so many at present extant? Such a volume is of greatest value to the student of medicine, and by him it will be almost invariably used to the disregard of the standard text-books and of the dependence upon personal notes taken at the lecture. It seems to your reviewer that it is a mistake to encourage the student to obtain his knowledge from a book which is avowedly a compilation rather than from the text-book itself. If it is to aid the student in connection with the text-book, we think it will be as often abused as are the translations of the Greek and Latin authors, the use of which has been prohibited in the academic departments of our universities.

If it is argued that there are many students who are unable to take notes at the lecture, we think that no willing pupil is so deficient in attention but that he could gather a few points, however fragmentary. The attention that will be given to the professor in order to record the essential facts will insure a better understanding of the subject than the reading of an incomplete discussion, such as will be found in the abridged volume under consideration.

Again, in using a book of this kind to the exclusion of the "larger works," the reader loses the individuality of the prominent authors of our time.

Finally, errors and omissions creep into all such works. The one under consideration is no exception to the rule. On page 19 the author says, "The disease [typhoid fever] is in no sense personally contagious, cases of typhoid being received into the general wards of hospitals without risk." In the same paragraph he says, "It is from the stools that the danger of infection arises. . . . If the stools are not disinfected the bacilli will live and thrive in them." It is just here that the danger of typhoid fever pertains when treated in a public ward. Page 103, the treatment of diphtheria by antitoxin is dismissed with a few words, and nothing is mentioned regarding immunizing injections of serum in the human subject. Page 170 says, "The bacilli of tetanus are found in the wound secretions, in the nerves leading from the point of infection, and in the spinal cord of the patient." We believe Kitasato's investigations show that, next to the wound, the most frequent seat of the development of the tetanus bacillus is in the heart's blood and cerebro-spinal fluid. Under the treatment of actinomycosis, page 180, nothing is said about the influence of potassium iodide. Page 282, a dissecting aneurism is classed as a false aneurism. Under appendicitis nothing is mentioned about the rôle of the colon bacillus in the etiology of the disease, page 506. Page 509 says, "Bacterial examination usually reveals pure cultures of the *Bacillus coli communis*." That is in the pus of appendiceal abscesses. Page 514, under the treatment of appendicitis we read: "Opium is to be given, to quiet the patient and to allay pain, but large doses to the point of semi-narcotization are not to be recommended. Cathartics are absolutely contraindicated, because of the danger of rupturing limiting peritoneal adhesions by the increase of intestinal peristalsis." We would prefer to use cathartics in preference to opium, according to the advice and example of Deaver. J. M. S.

BORDERLAND STUDIES. MISCELLANEOUS ADDRESSES AND ESSAYS PERTAINING TO MEDICINE AND THE MEDICAL PROFESSION, AND THEIR RELATIONS TO GENERAL SCIENCE AND THOUGHT. By George M. Gould, A.M., M.D., formerly editor of the Medical News. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut Street, 1896.

We confess to the old-time love for a good essay, and believe nothing does more for a man intellectually than the reading of a live, intelligent, breezy exposition, even of views antagonistic to his own. There is something in the style of the true essayist that makes his thought luminous through dull type and paper till it warms and lights the very soul; a style inimitable; unattainable by the great host of ready writers of the day, who can do a poem or a story on demand, but fail utterly in the task which was a bagatelle to Thackeray, a pastime to Lamb. America has produced few essayists in the highest, truest sense. The ideal of this style, the intangible charm of the true essay must be sought far back of Lamb, Christopher North, and Addison, even as far as Horace, where, curiously enough, it can be found and studied in the work of the master, in the satires and the *ars poetica*, which, stripped of their rhythm and turned into good honest English prose, we recognize as the fathers of all the essays that we love, of all the gentle satire and worldly wisdom of "Philip" and the "Newcomes," and "The Book of Snobs," the charm of Holmes, and of those perfect disquisitions on life and manners with which the "Easy Chair" of Harpers' for so many years delighted the cultivated American world.

It is not material and valuable fact alone, but fact as a bright man looks at it, speculates and theorizes about it, the emotions it stirs within him, and the queries it suggests, that makes the essay. It is a ramble on some rugged sea-side or blooming heath with a bright and spirited guide rather than a solemn measurement of heights and depths or a dissertation on flora or geology.

All this Dr. Gould's book suggests. Read his "Modern Frankenstein," "Character," "Immortality," and the spirit of the writer will seize on and sweep away with it the most reluctant reader, where it will, like the wind that bloweth, and, after a rush and scramble, or a soaring where only the eagle goes, after many a tussle with great thoughts and mighty winds of doctrine which buffet them both, it will set him down breathless but delighted, with locks disarranged and streaming, with neck-tie awry and hat tilted, but all the better and fresher and brighter for many a day to come.

Some of these essays were written in editorial routine, some as addresses before medical societies and reunions, but through them all runs the same spirit of earnestness, of reverent irreverence, of devout scepticism, and through all and over all the love of the lover of Truth, who would throw to the winds the idle trappings in which the world has disguised his beloved and tried so long to veil from him the glory of the beautiful soul within.

Love of nature that lives and a half-concealed scorn of the inanimate shows in every page. Read "Vivisection" and "The Rôle of the Maternal Instinct in Organic Evolution," and believe, if you can, that the writer could be regardless of animal suffering and careless of experimentally inflicted woes. "Life and its Physical Basis" exhibits well the theory that Dr. Gould has so beautifully worked out to a more perfect conclusion in his "Method and Meaning of Life." Both are based upon the evidences of effort and struggle, kindness and love on the part of Life, the Unknown, in its endeavor to subjugate matter; the author tracing with almost pathetic interest the long, untiring struggle of some power beyond our ken to overcome unyielding substance, to work through the evolutionary process and painfully, step by step, till earth's deserts blossom as the rose. The whole essay is one sustained and successful effort to "look through nature up to nature's God," a study far removed from the materialism of science, but faintly allied with pantheism, and which sheds a light of hope in the dark regions of materialism. To the rigidly orthodox heart it may be gall and bitterness, but to the growing multitudes that float on a sea of religious uncertainty, "driven and tossed," it may well bring comfort, reverence, and a sort of faith by no means to be despised.

Much of the book is taken up in discussing the varied aspects of scientific and popular medicine as they strike the writer. "Is Medicine a Science?" "The Duty of the Community to Medicine," "Charity Organization and Medicine," "Hospitalism," and "The Etiology, Diagnosis, and Treatment of the Prevalent Epidemic of Quackery," with their scorching irony; "The Untrustworthiness of the Lay Press in Medical Matters," "The Disorganization of Medicine," and "Concerning Specialism," these all strike right and left, giving good blows, rough and honest, and yet never strike too hard or hit other than him who richly deserves it.

In "Dreams, Sleep, Consciousness," the author finds himself near his own beloved fields, and fills his pages with wisdom and fancy, experience and imagination. "Dreams," he says, "argue against our innate depravity. Unless feelings of profound pity, contempt, indignation are aroused, I find that in dreamland I am not immoral but unmoral." Dr. Gould drops a hint as to the visual foundations of dreams which we hope some one will some day pursue much further than has yet been done,—studying the dreams of the congenitally blind.

"Immortality" voices the clamor of the newly-awakened world of science against old, mechanic theology. The dearest tenets of the ages will not bear rude confrontation with the new science of the day, and men go through years of life, as

Drummond says he did, keeping as widely apart as possible, in their big or little minds, the rival thoughts and beliefs that are aching for a fight for supremacy; while the soul each day roams farther afield and meets on the borderland strange, new friends which perplex it, as they demand an entrance which it dare not refuse, yet fears to grant; and all the time the household gods, the old Teraphim, sit shuddering, deep in the silent gloom within.

Dr. Gould's pages are filled with bright thoughts and deep-searching queries. What is it in ourselves, he asks, that we would choose to be immortal? What is it that can reasonably be expected to survive death? "The one fundamental mystery of the explainable world is why life seeks objectification in material forms, and why it seeks it with such vehemence and ardor." "Why or how or whence life comes to us, we do not know now, but the transcendent miracle is ever before our eyes; infinitely rich and free, life is filling, thrilling, surcharging every molecule of matter to which, with wondrous power and ingenuity, it can gain access." "This extension of the law of the conservation of force to things biologic and psychic is a two-edged sword; it offers conclusive evidence of the fallacy of the materialist and the believer. There is no annihilation. Your life at death not only may not stop but cannot stop." "You can't love God unless you love and know what he is doing in this universe."

At least we can say that Dr. Gould gives us one aspect of religion, or a true religion of one aspect, and of the intense religious feeling with which he interweaves biologic, and, in fact, all science, with his own chosen theory of life the reader soon becomes aware, and while he may dissent from his views he must confess this belief of the author's to be a vast step forward and upward from the depths of scientific materialism or pure negative agnosticism. As a view of a religion, reverent, helpful, and cheering, which can be extracted from modern science and exploited by a scientific man, this volume, in many of its essays, like Dr. Gould's more thorough and finished work, "The Method and Meaning of Life," is throughout a beautiful and valuable example. To the Greeks it may be foolishness, but to the student of life who finds the old paths blocked and overgrown, it brings an insight surely of the power and love of a God not all "unknowable."

EDWARD W. WATSON.

A MANUAL OF ANATOMY. By Irving S. Haynes, Ph.B., M.D., Adjunct Professor and Demonstrator of Anatomy in the Medical Department of the New York University; Visiting Surgeon to the Harlem Hospital; Member of the Society of the Alumni of Bellevue Hospital, of the American Association of Anatomists, etc. 12mo, pp. 680, with 134 half-tone illustrations and 42 diagrams. Cloth, \$2.50. Philadelphia: W. B. Saunders, 1896.

This is another of Saunders's New Aid Series. While your reviewer has formerly expressed himself in regard to the multiplication of works of this class, and while not having changed his opinion in this respect, still he must admit that this book is entitled to some praise. So far as the reviewer's knowledge goes, it is the first manual to bring the consideration of the important visceral and nervous anatomy up to date, and also the first to treat of these subjects from the rational stand-point of embryology. Contrary to the usual custom, this volume contains much original work which has been done by the author with the aid of the camera.

Inaccuracies have occurred, however. For example, page 158, we read, "After entering the skull through the foramen lacerum medium," in reference to the internal carotid artery, should read, "through the carotid canal." Page 160, the posterior communicating arteries are said to connect the posterior and middle cerebral vessels, while they really unite the posterior cerebral and internal carotid arteries. Page 166, we read, "While there is some ratio between the degree of intelligence and the brain-weight, it is at the most very unreliable for comparison between indi-

viduals of the same race." Dejerine¹ states that "although the volume of the encephalon is in a constant relation with the capacity of the cranium, it in no way follows that the intellectual capacity is proportional to the mass and to the volume of the encephalon." Page 204 does not give sufficient clearness to the deep origins of the auditory, glosso-pharyngeal, pneumogastric, and spinal accessory nerves. The boundaries of the axilla are omitted in the text, and are afterwards inserted in an addendum; but no reference to this omission is made in the body of the work. These examples will show that absolute dependence should not be placed on a work of this kind, although it might be a valuable guide. The illustrations are excellent, and the index good.

J. M. S.

ELECTRICITY IN ELECTRO-THERAPEUTICS. By Edwin J. Houston, Ph.D., and A. E. Kennelly, Sc.D. Elementary Electro-Mechanical Series. Pp. 402. New York: The W. J. Johnston Company, 1896.

As stated in the preface, this little book is intended to meet a growing demand, both on the part of the medical practitioner and the general public, for reliable information respecting such matters in the physics of electricity applied to therapeutics as can be readily understood by those not specially trained in electro-technics.

The book certainly accomplishes the object intended. The language is very free from confusing technical expressions. The descriptions of apparatus are exceedingly clear. The authors do not enter at all upon a discussion of the therapeutic uses of electricity. The different forms of apparatus used in medical electricity are described, and the principles upon which they work explained. The chapters on Electro-motor Force, Electric Resistance, and upon Electric Work and Activity are especially good. The book ends with a chapter on "Dangers in the Therapeutic Use of Electricity."

J. P. A.

PRACTICAL POINTS IN NURSING, FOR NURSES IN PRIVATE PRACTICE. With an Appendix containing Rules for Feeding the Sick, Recipes for Invalid Foods and Beverages, Weights and Measures, Dose List, and a Full Glossary of Medical Terms and Nursing Treatment. By Emily A. M. Stoney, Graduate of the Training School for Nurses, Lawrence, Massachusetts; Superintendent of Training School for Nurses, Carney Hospital, South Boston, Massachusetts. Pp. 456, illustrated with 73 engravings in the text, and 9 colored and half-tone plates. 12mo, cloth \$1.75. Philadelphia: W. B. Saunders, 1896.

This book is designed "to explain, in popular language and in the shortest possible form, the entire range of private nursing as distinguished from hospital nursing," and yet on pages 23 and 24 over thirty lines are devoted to "Hospital Etiquette." It is also designed "to instruct the nurse how best to meet various emergencies, . . . studiously refraining, however, from advising the nurse to act upon her own responsibility, or to assume personal treatment of the patient except under circumstances of great urgency;" and on page 25 we find a list of four active remedies which the nurse is told she should carry in her bag, and which, in our opinion, she should never use upon her own responsibility. These are digitalis, strychnine, morphine, and ergot. It seems to your reviewer that there is a field for a book on nursing which would attempt just enough, and not too much. We consider that too much has been attempted here. If the author had confined herself to describing the methods of administering remedies and of carrying out treatment, without having added a consideration of the different diseases and their treatment, many mistakes and omissions would have been avoided. Take the subject of typhoid fever, for example: on page 83, eleven lines are devoted to the method of adminis-

¹ Anatomie des Centres nerveux, Paris, 1895, p. 236.

tering a cold tub-bath. Under the heading of typhoid fever nothing is mentioned about the use of cold tubbing in this disease, and on page 219 we read that "tepid baths are given to lower the body temperature." In the days of portable bath-tubs and their recognized value the nurses of the older, as well as of the younger, classes should be familiar with their use. Page 218: "The milk diet" (in typhoid fever) "should be alternated with beef-tea, chicken-broth, oyster-broth, coffee, or cocoa." Other instances could be cited, such as the advice as to the use of morphine in appendicitis, page 248. In the glossary we find some curious definitions, such as: "Aortic valve,—The upper valve on the right side of the heart." "Apoplexy,—Sudden insensibility from pressure on the brain." "Auscultation,—Listening to sounds of the body for the purpose of diagnosis. . . . The sounds heard are called ronchi. . . . A nurse should learn to use the stethoscope by personal application." "Biparous,—Bearing twins." "Chronic,—A lengthy, mild disease." "Pneumogastric,—Relating to the lungs and stomach, and applied to certain nerves, etc., connecting those two parts." "Pupil,—The iris or centre of the eye." "Spinal cord,—The marrow of the spine." There are many other points which could be improved upon.

J. M. S.

A TEXT-BOOK OF PRACTICAL MEDICINE. By Alfred L. Loomis, M.D., LL.D., Professor of Pathology and Practical Medicine in the Medical Department of the University of the City of New York; Visiting Physician to Bellevue Hospital, etc. Revised and enlarged, with two hundred and seven illustrations and one chromo-lithographic plate. Eleventh edition. 1134 pages. Price, cloth, \$6.00; leather, \$7.00.

Dr. Loomis was engaged in a revision of the present edition of his work at the time of his last illness. After his death only such alterations or additions as were thought absolutely necessary were made. Drs. Coakley and Fisher revised the sections on Diseases of the Nose and Throat and Nervous Diseases respectively; while Dr. Coleman assisted in the general revision. Dr. Loomis was so well known in America as a distinguished and impressive teacher, and his work has passed through so many editions, that little need be said in comment of it. The author is justly known as one of the clearest and most vigorous of American teachers, and his book has been a representative standard text-book. As far as the present edition is concerned, every effort has apparently been made to bring it up to date, and, as far as this is possible, has been accomplished. There will always remain, of course, certain matters of newer knowledge which cannot readily be included in a revised edition. To this extent alone the present edition seems deficient.

A. S.

THE STUDENT'S MEDICAL DICTIONARY. Including all the Words and Phrases generally used in Medicine, with their Proper Pronunciation and Definitions, based on Recent Medical Literature. By George M. Gould, A.M., M.D., with Elaborate Tables of the Bacilli, Micrococci, Leucomains, Ptomaines, etc.; of the Arteries, Ganglia, Muscles, and Nerves; of Weights and Measures; Analyses of the Waters of the Mineral Springs of the United States, etc. Tenth Edition, Rewritten and Enlarged. Price \$3.25 in cloth. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut Street, 1896.

It is with great pleasure that we recommend the "Student's Medical Dictionary" to our readers. It is a work of true merit: up to date, carefully edited, well printed, and moderate in price.

Page 191 of the old edition, issued first in 1890, was opened at random, in order that the new additions might be noted. The word "hidrosis" (*ιδρως*) is there defined as "the formation and excretion of sweat." In the present edition, page 312, the pronunciation is given, the proper accent is added to the Greek word, and two extra

uses of the word are defined,—namely, abnormally profuse sweating, and any skin-disease marked by disorder of the sweat-glands. From hidrosis down to histogenesis, at the bottom of the column, in the old work, there are fifteen words; in the new there are twenty-three words.

It seems but yesterday that Röntgen made the important announcement of his new discovery, and yet we find the words skiagraphy, skiography, skotography, radiography, electrography, electroskiography, and Röntography, defined and arranged alphabetically in their proper places.

There is but little use for the valuable, but not revised, appendix, by Dr. Daland, giving a description of the mineral springs of the United States. The ordinary medical student certainly does not want to refer to this article, and the material should be placed, if it must be put in a dictionary, in the larger illustrated work by the same author.

Even the few peculiarities of spelling appear lost in the excellence of the whole, and the reviewer does not feel called upon to criticise some minor errors and inconsistencies where there is so much merit,—almost amounting, in places, to perfection.

H. W. C.

PRACTICAL URANALYSIS AND URINARY DIAGNOSIS. A Manual for the Use of Physicians, Surgeons, and Students. By Charles W. Purdy, M.D., Queen's University. Second, Revised, Edition. With numerous illustrations, including photo-engravings and colored plates. In one crown octavo volume, 360 pages, in extra cloth, \$2.50 net. Philadelphia: The F. A. Davis Company.

This manual is an excellent working book for the laboratory of the practising physician. The first edition has already been favorably reviewed in the July, 1895, number of the INTERNATIONAL MEDICAL MAGAZINE, and the appearance of the second edition so soon after the first speaks well for the popularity with which the work has been received. There are, therefore, but slight changes made in the reading matter, the number of pages remaining the same. There are errors and inaccuracies,—too many, in fact, for a second edition. Dr. Patrick Manson would certainly not be pleased to find his name spelled Mason, on page 209; von Jaksch's name is written Jaksch, Von Jaksch, and v. Jaksch. Why should the statement be made that "acetonuria" is frequently associated with certain forms of *cancer*, notably *carcinoma*?

We feel sometimes as if we wished that the supply of the Annual of the Universal Medical Sciences paper, used in binding and ornamenting the front and back pages of the F. A. Davis books, would give out, for while the color varies the design does not change.

H. W. C.

ITEMS OF INTEREST.

DURING the summer the commissioners of Bellevue Hospital, New York, granted one Dr. O. permission to experiment upon certain patients in the alcoholic wards of that institution. Dr. O. claimed to have possession of a remedy that would cure alcoholism. After the permit had been granted, the visiting physician, then on duty, remonstrated with the commissioners for granting an outside physician this privilege, and requested that the "cure" be tested under the supervision of the regular medical staff.

The Use of Hospital Wards for the Experimentation with Secret Nostrums.

As a necessary consideration for the continuance of treatment the attending physician demanded the composition of the "cure." When Dr. O. was asked to publish the formula of his remedy he absolutely refused; whereupon, in order to avoid friction, the commissioners set aside a special ward in which the experiment might continue under the supervision of Dr. O. The cases previously treated in the general ward were accordingly transferred to the special ward. Later the commissioners were advised of the death of two of the patients who had been sent to the special ward to be cured. Thinking they had made a mistake in allowing the experiment to proceed, the commissioners then addressed the medical board and requested them to investigate the method of conducting the therapeutic test. To this request the medical board made a dignified reply, of which the following is a part: "In regard to the specific matter referred to in your communication, while we are always ready to investigate any scientific problem presented to us, we are unable to find any logical basis for the investigation of the action of any remedy or remedies, or the efficacy of any method of treatment which does not involve a full knowledge of the composition of the remedy, together with accurate and full details of the proposed plan of treatment; we consequently have and can have no report to make of the scientific cases referred to in your communication.

"In view of our long public service in your hospital, we feel justified in deprecating the trial in the hospital of any secret remedy or plan of treatment, as opposed to the universally recognized traditions of our profession, and to the best interests of the public and the sick poor under our care."

The remedy in question has been conclusively shown to be managed by an incorporated company, all the stock of which has been paid in; in fact, it is a secret nostrum in every sense of the word. It would seem, therefore, that the commissioners, instead of fostering a remedy which would prove

to be a blessing to humanity, have, in truth, been lending the wards of a charitable institution as an advertising medium. The experiment seems, however, to have died a natural death.

In this same line it is interesting to recall the fate of Dr. B.'s "consumption-cure" experiments, which were conducted at St. Agnes's Hospital, Philadelphia, in the early part of the present year. In this instance, when failure of the "cure" had been demonstrated, the physician who had been conducting the experiment made accusations of broken faith on the part of the attending physician who had extended him the courtesy of his wards and his patients. These accusations appeared in the public press and unjustly involved the integrity of both visiting and resident physicians.—*Medical News*, August 1 and 22, 1896.

At the annual meeting of the British Medical Association, which was held at Carlisle on July 28, 29, 30, and 31, there was an attendance of over seven hundred members. Among the new measures discussed at this meeting the most important to the profession was the scheme of medical defence. This resolution seeks to appoint a central committee which shall protect the members of the regular profession in Great Britain from attack and from the operations of irregular practitioners and of quacks. It is also proposed to appoint a committee of eleven members which shall hold monthly meetings for the conduct of the journal and the finances of the association, and which shall have the management of special questions,—such as parliamentary bills, ethics, medical charities, and the like. It is proposed to compensate the members of this committee for their services. A special committee bore to the association an urgent invitation from the Montreal, Canada, branch to convene at that city in 1897. The council of the association accepted the invitation, which was subsequently confirmed by the general meeting.—*British Medical Journal*, August 8, 1896.

Drs. Liston and F. B. Nolan, of Balbriggan, near Dublin, recently brought before the recorder of Dublin a claim for £6 each for medical attendance upon a poor man who was accidentally killed.

An Angry Judge. The widow got £400 damages, but she refused to pay the men who had done their best to save her husband. They had to treat fractured limbs, a lacerated lung, a ruptured liver, and a ruptured bladder, and see the patient twice in the middle of the night. Dr. Liston paid in all twenty-eight visits. The charges were ridiculously low. Even the recorder thought it would be monstrous if professional men who were suddenly called to attend a case of this kind were to be met with a denial of all responsibility for fees. The appearance of the weeping

defendant in the box, however, and the statement that £3 had been offered and refused, drew from the recorder a reference to 1s. 3d. fees in England and a bit of experience. Here it is: He himself broke his leg in Yorkshire and was attended by one of the first men in his profession during his entire illness, and what did they think he was charged?—£9 18s. We trust this was during the period of the judge's struggle as a young barrister. If it occurred since he has been enjoying a large salary as a judge, we think he would have shown more discretion by keeping the tale to himself. We hope one of the first men in his profession now appreciates the conduct of an Irish judge who makes use of his medical attendant's moderation to grind down the claims of other doctors. In the end a decree was given for £3, and then Dr. Liston, addressing his solicitor, said, "Mr. Walsh, appeal, appeal:" whereupon the judge is reported to have had Dr. Liston removed from the court, winding up as he left the bench by the exclamation: Six guineas each, indeed, for two doctors that settled this poor man in four days. But we may ask by what right Recorder F—— dares to make a charge that these "two doctors settled this poor man in four days." It is outrageous that any official paid by the state to administer justice should forget his position and insult gentlemen as learned as he, and whose profession is as noble. There is too much of this in some quarters.—*British Medical Journal*, July 18, 1896.

In the temple of the Goddess of Mercy, in the suburbs of Foochow, China, the visitor may see votive tags suspended. When asked the meaning of these offerings the abbess informed the inquirer that the bags contained the names of children who, on being attacked with small-pox, were brought to the temple and offered at the altar of the goddess, after which ceremony, which is supposed to save their lives, they were taken away. The bags containing the names of the children are left in the temple permanently.

In the August number of the *Review of Reviews*, Mr. W. T. Stead gives a synopsis of the life of Dr. Thomas John Barnardo and his thirty years' work among the destitute children of Great Britain. The sketch is exceedingly interesting and shows how, from a small beginning, a member of the medical brotherhood, for Dr. Barnardo is a Fellow of the Royal College of Surgeons, has been able to reclaim an average of one thousand children yearly from vice and degradation. The article describes Dr. Barnardo as "surgeon, editor, preacher, teacher, Jack-of-all-trades, and a past-master in all." Under the personal management of this one man we find eighty-five homes, offices, and charities in different parts of the kingdom into which the destitute are freely received, and in which children are brought up to be useful

A Chinese Treatment for Small-Pox.

The Father of Nobody's Children.

members of the community, when finally they are launched into the work-a-day world upon their own responsibilities. The practical result obtained is that these children, of both sexes, become useful and industrious citizens. During 1895 six thousand nine hundred and eleven children were maintained and educated by this system.

Annual Increase
of the Insane in
Pennsylvania.

The following table shows the annual increase of insane patients in all institutions in Pennsylvania, including State and private hospitals, almshouses, and jails, for the past twelve years:

1884.....	5374—an increase of 36 over the previous year.
1885.....	5640—an increase of 266 over the previous year.
1886.....	5923—an increase of 283 over the previous year.
1887.....	6259—an increase of 336 over the previous year.
1888.....	6510—an increase of 251 over the previous year.
1889.....	6884—an increase of 374 over the previous year.
1890.....	7399—an increase of 515 over the previous year.
1891.....	7649—an increase of 250 over the previous year.
1892.....	7855—an increase of 206 over the previous year.
1893.....	8104—an increase of 249 over the previous year.
1894.....	8616—an increase of 512 over the previous year.
1895.....	8925—an increase of 309 over the previous year.

The sum of these annual increases is 3587, or an annual average increase of 299 insane patients.

Buda-Pesth is at present engaged in the celebration of the one thousandth anniversary of the foundation of the Hungarian nation. Among the exhibits at this millennial celebration, which will prove attractive to visiting physicians and scientists, are the hygienic, the children's hygienic and educational, and the balneological. The exhibition of mineral waters shows a very ingenious departure from the routine method of displaying labelled bottles and analyses of their contained mineral waters. A series of panoramic views have been so arranged that the visitor may see the spring from which the water is derived, or the water "cure" establishment which is situated near the spring. Models of sewers, of the gas-works, of the water-works, of the public buildings, and of the hospitals illustrate the municipal departments of Buda-Pesth. A number of congresses convene in the Hungarian capital during the progress of the celebration, among which are the National Hungarian Congress of Hygiene and Medicine, and the Congress on the Housing of the Poor. As yet, in Buda-Pesth, the accommodation available for the working classes is inferior to that existing in the majority of large towns. The underground electric railway, the central milk-house, the town

Hungary's Mil-
lennial Celebra-
tion.

slaughter-house, the pig-market of Steinbrück, the new water-works, and the system for the prevention of contagious diseases are worth the scientist's time, attention, and study. The Hungarians are said to be exceedingly hospitable to their foreign visitors.—*Lancet*, August 22, 1896.

The contributions for the erection of the memorial to Dr. William Meyer, the discoverer of an efficient method of curing adenoid vegetations of the pharynx, have reached five thousand dollars. This is all that will be required for the completion of the monument, which is to be designed by a Danish sculptor.

William Meyer
Memorial.

The Third International Congress of Psychology marks another step in the progress of one of the great sciences which minister to the art of medicine. The first congress was held in Paris in 1889, the second in London in 1892, and the third at Munich, from August 4 to 7, 1896, in the university. The organization of the congress was perfect, and the success of the meetings was due to the thought and labor of the gentlemen who, as representatives of the Science of Munich, had charge of the arrangements. The civilized nations of the world were represented by some of their ablest men, and the papers were of unusual interest.

Third International Congress
of Psychology.

The congress was opened by the address of Professor Stumpf, of Berlin, as president. Then followed the greetings from the state of Bavaria, the city of Munich, and the university. The principal papers were given in three general sittings, and among them were papers on "Pain," by Richet, of Paris; "Emotions," by Sergi, of Rome; "Psychology of Children," by Preyer, formerly of Berlin; "The Unconscious in Psychology," by Lipps, of Munich. Also papers from Exner, of Vienna; Sedgwick, of Cambridge; Ebbinghouse, of Breslau; Janet, of Salpêtrière. The special papers were given in the sections, of which there were five: I., Psycho-Physiology; II., Psychology of the Normal Individual; III., Psycho-Pathology; IV., Comparative Psychology (of Child and Animal); V., Psychology and Teaching.

The men who presented special papers were representatives of the best work done in Europe and America in the fields of philosophy, psychology, physiology, and psycho-pathology, and from the prominence of the men from the medical schools, especially of Paris, Vienna, and Munich, the congress might almost be claimed as an extra session of the great medical congress series.

While the papers were the important factors of the congress, there were other things which were very valuable in making the congress a complete

success. The hearty welcome extended by the city of Munich and the entertainments all added the element of human friendliness which bound the members into a body whose object was the bettering of a great science, that of the human mind. The next congress will be held at Paris in 1900.

W. S. W.

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